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## **Introduction: The Complexities of Morphology**

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# 1

## Introduction

### Complexities in morphology

*Peter Arkadiev and Francesco Gardani*

#### 1.1 Setting the scene

Morphological and, broadly, linguistic complexity has become a popular topic in linguistic typology and theorizing, as several recent publications testify to, such as McWhorter (2001, 2005, 2018); Kusters (2003); Dahl (2004); Hawkins (2004, 2014); Trudgill (2004a, 2011); Shosted (2006); Miestamo et al. (2008); Sampson et al. (2009); Dressler (2011); Kortmann & Szmrecsanyi (2012); Newmeyer & Preston (2014); Baerman et al. (2015b, 2017); Reintges (2015); Baechler & Seiler (2016); Mufwene et al. (2017); among many others. While this large body of work has contributed to significantly improving our understanding of morphological complexity, a number of key issues remain unsettled. They are of both theoretical and empirical nature and pertain to the domain of morphology and morphosyntax as well as to the ways language use and its socioecological conditions influence linguistic structure. Undoubtedly, the most pressing question is what morphological complexity actually is. There is no straightforward answer to this question, as we will see. The issue of how to define ‘morphological complexity’ is of central importance to us and will be treated in detail in the course of this Introduction and of the volume. To properly frame this central issue, however, we can anticipate that the notion of ‘complexity’ in morphological systems is often revealed and investigated through a set of relative measures that attempt to quantify the extent of morphology in a language, the predictability of the morphological system, and the pressures this places on processing and acquisition. The goal of the present volume is to build upon previous work on morphological complexity and to provide a crosslinguistic view on the key problems of its investigation seen from the perspective of a variety of current approaches.

In the heart of all discussions of linguistic complexity, and especially of morphological complexity, lies the idea that complexity itself is a parameter of crosslinguistic variation. The history of this line of thought (see Joseph & Newmeyer 2012 for an excellent overview) shows some non-trivial swings of the pendulum ranging from the pre-theoretical assumptions of the linguists and

philosophers of the early nineteenth century about the ‘complex’ classic Indo-European languages as opposed to the ‘primitive’ languages of ‘uncivilized people’ to explicit statements that all languages are equally complex. The latter view, which is known under the label of ‘equicomplexity hypothesis’, takes into account obvious differences between languages in the mere degree of elaboration of different structural subdomains (such as, e.g., vowels vs. consonants or nominal vs. verbal morphology); it states that ‘these isolable properties may hang together in such a way that the total complexity of a language is approximately the same for all languages’ (Wells 1954: 104; see also Hockett 1958: 180). Such a position, which is still commonly held by linguists of different backgrounds and theoretical persuasions (see, again, Joseph & Newmeyer 2012: 348–9; and Miestamo 2017), has been challenged by others, who have shown that ‘complexity in one area of grammar [correlates] positively with complexity in another area’ (Sinnemäki 2014: 190).

With the development of contact linguistics and especially of pidgin and creole studies in the second half of the twentieth century, claims started being made that pidgins and creoles are structurally overall simpler than languages with a ‘regular’ sociolinguistic history (see, e.g., such work as Bickerton 1984; McWhorter 2001, 2005; Parkvall 2008; Bakker et al. 2011; Good 2012b, 2015), and, more generally, it has been claimed that linguistic complexity is subject to diachronic change and the effects of language contact (see Dahl 2004 and Trudgill 2011). As a matter of fact, statements to the effect that sociolinguistic parameters such as the number of speakers and degree of contact with other languages affect the complexity of linguistic (sub)systems go back as early as Jakobson (1929) and Trudgill (1983).

Once it had been recognized that morphological complexity is a parameter of crosslinguistic variation, the urge arose to develop non-impressionistic and cross-linguistically applicable ways of measuring and quantifying the degree of morphological complexity of individual languages. The most important proponent of this line of thought is certainly Greenberg (1954), who developed a methodology of quantitative measurement of different types of morphological structure, the most famous of which is the ‘synthetic index’ (p. 185), that is, morpheme-to-word<sup>1</sup> ratio in a sample of texts, which arranges languages into a continuum spanning from radically isolating to polysynthetic. This simple metric, however, is clearly insufficient for the assessment of morphological complexity, since morphology is much more than mere arrangement of morphemes into words. As a simple illustration, consider the case-number paradigms of Turkish (Lewis 2001: 28) and Lithuanian (P.A.’s own knowledge) nouns in Table 1.1.

Both Turkish and Lithuanian have two number and six case values, yielding twelve word forms. However, while in Turkish case and number are expressed

<sup>1</sup> ‘Word’ is intended as ‘word form’.

**Table 1.1.** Case paradigm of Turkish *ev* ‘house’ and Lithuanian *miestas* ‘city’

	SG	PL		SG	PL
NOM	<i>ev</i>	<i>ev-ler</i>	NOM	<i>miest-as</i>	<i>miest-ai</i>
ACC	<i>ev-i</i>	<i>ev-ler-i</i>	ACC	<i>miest-q</i>	<i>miest-us</i>
GEN	<i>ev-in</i>	<i>ev-ler-in</i>	GEN	<i>miest-o</i>	<i>miest-ų</i>
DAT	<i>ev-e</i>	<i>ev-ler-e</i>	DAT	<i>miest-ui</i>	<i>miest-ams</i>
LOC	<i>ev-de</i>	<i>ev-ler-de</i>	LOC	<i>miest-e</i>	<i>miest-uose</i>
ABL	<i>ev-den</i>	<i>ev-ler-den</i>	INS	<i>miest-u</i>	<i>miest-ais</i>

separately by dedicated suffixes in a compositional way, Lithuanian has cumulative (fused) exponence of both features. Under Greenberg’s morpheme-per-word ratio, Turkish nominal word forms are more complex than Lithuanian ones just because Turkish may have three (and in fact much more) morphemes per nominal word form (e.g., *ev-ler-de* house-PL-LOC), while Lithuanian has only two (*miest-uose* city-LOC.PL). However, if we consider the total number of different affixes occurring in the given paradigms, we find that Turkish with its six overt affixes is actually simpler than Lithuanian with its twelve affixes (see, e.g., Plank 1986 for an early attempt to assess the complexity of morphological systems in such terms). Things become even more complicated if we go beyond Table 1.1 and consider the existence of at least five arbitrary inflectional classes of nouns in Lithuanian intersected by four partly arbitrary accentual classes, also called ‘accentual paradigms’ (a.p.), in Table 1.2 (from Arkadiev et al. 2015: 16; ‘hard’ and ‘soft’ refers to subdeclensions with non-palatalized and palatalized stem-final consonant, respectively; for more details on Lithuanian declension classes, see Ambrazas et al. 2006: 107–33).

This example suggests that along with morphological complexity on the syntagmatic axis (something that can be measured by the morpheme-to-word ratio) there exists morphological complexity on the paradigmatic axis, the two being logically and empirically independent of one another. Thus understood, morphological complexity becomes a composite notion and does not admit of such simple measurement as syntagmatic complexity (see more on this issue below), therefore an unbiased and non-reductionist crosslinguistic empirical investigation of morphological complexity itself becomes a fairly complex problem.<sup>2</sup>

All in all, it seems to us that the most urgent still unsolved issues in morphological complexity can be captured in terms of the following questions:

<sup>2</sup> In this connection, Haspelmath (2009) has shown that parameters traditionally attributed to ‘flexion’, as opposed to ‘agglutination’, such as cumulation, stem allomorphy, and affix allomorphy, are logically and empirically independent of each other.

Table 1.2. Sample paradigms of Lithuanian nouns

		I hard ‘man’ (m) I a.p.	I soft ‘horse’ (m) III a.p.	II hard ‘day’ (f) IV a.p.	II soft ‘bee’ (f) II a.p.	III hard ‘son’ (m) III a.p.	IV (soft) ‘night’ (f) IV a.p.
SG	NOM	výras	arklys	dienà	bitė	sūnūs	naktis
	GEN	výro	árklío	dienòs	bitės	sūnaūs	naktiės
	DAT	výrui	árkliui	dīēnai	bitei	sūnui	nāččiai
	ACC	výrą	árklį	dīēną	bitę	sūnų	nāktį
	INS	výru	árkliu	dienà	bitė	sūnumi	naktimi
	LOC	výre	arklyje	dienojė	bitėje	sūnujė	naktyje
PL	VOC	výre	arklį	dīēna	bite	sūnaū	naktiė
	NOM	výrai	arkliai	dīēnos	bitės	sūnūs	nāktys
	GEN	výrų	arklių	dienų	bičių	sūnų	naktų
	DAT	výrams	arkliams	dienoms	bitėms	sūnums	naktims
	ACC	výrus	arklius	dienàs	bitės	sūnus	naktis
	INS	výrais	arkliais	dienomis	bitėmis	sūnumis	naktimis
	LOC	výruose	arkliuose	dienosė	bitėse	sūnuosė	naktysė

1. The hypothesis that morphology and syntax represent distinctly different, but interdependent types of grammatical organization has been challenged by scholars such as Haspelmath (2011), claiming that the divide between morphology and syntax is not clear-cut and hence irrelevant for typology. Given this, are there theoretical and methodological tools suitable to define morphological complexity and if yes, which ones?
2. If we, however, accept the hypothesis that the morphology vs. syntax divide is crosslinguistically and theoretically valid (see Arkadiev & Klammer 2019; Arkadiev 2020)—a view which we espouse—can we arrive at a uniform notion of morphological complexity given the diversity of morphological phenomena?
3. In direct connection to the former question, can we arrive at a single and straightforward measure of complexity that applies to languages that display radically different morphological encoding strategies?
4. What is the role of sociolinguistic, psycholinguistic, and diachronic factors in affecting morphological complexity?

These problems constitute the main research questions of this volume, which aims to tackle them in a principled way, by presenting a collection of original research papers on different aspects of morphological complexity. This introductory chapter is meant to outline the field and take the reader through the volume, and it is organized as follows: section 1.2 pursues the question of the scope of ‘morphological complexity’; section 1.3 surveys several conceptions and methodological approaches to morphological complexity distinguishing between two main types: formal approaches (section 1.3.1) and psycholinguistic approaches (section 1.3.2). Section 1.4 presents the structure of the volume and summarizes the contributions to it.

## 1.2 What is complex?

In all discussion on morphological complexity, a question hangs in the air. Is morphology complex in its own right? This question is partly rhetorical, maybe trivial, but still central, as it concerns the theoretical demarcation of the object of investigation. The widespread expression ‘morphological complexity’ has at least two readings. It can refer to the overall contribution of morphology to complexity in grammar or it can mean complexity inside morphology.

The first reading, viz. morphology as a source of complexity for the overall language system, would be justified by the fact that languages can do (almost) entirely without morphology and that ‘a language can persist for a long time with little or no morphology’ (Aronoff 2015: 282). In this vein, Carstairs-McCarthy (2010: ch. 2) and Anderson (2015a: 12–13) conceive of morphology as a

redundant architectural quirk added to the logically necessary systems of syntax and phonology, and Aronoff goes so far to declare: ‘morphology is inherently unnatural. It’s a disease, a pathology of language’ (Aronoff 1998: 413). Such a view apparently entails that languages without morphology (e.g., Yoruba) are less complex than languages with at least a little morphology (e.g., Tok Pisin). This type of morphological complexity could then be paraphrased as ‘complexity induced by morphology’. The assumption that morphology *per se* is a complication resonates with the terminological use of ‘morphological complexity’ to define the property of words having an internal morphological structure, being, so to say, morphologically complex, as we find in some authors concerned with word recognition (e.g., Fiorentino & Poeppel 2007; Bozic & Marslen-Wilson 2010), sign linguistics (Zwitserlood 2003), and rarely word formation (Hay 2003). Clearly, in this usage, complexity means the presence of internal structure, and claiming that a formally complex (i.e., composite) word is in itself complex, as opposed to a simplex word, amounts to saying that morphology as such is complexity. That would imply that morphology makes the language system more complex—an observation that is relative to other components of a language’s grammar. Adopting the concept of ‘effective complexity’ by Gell-Mann (1995), Moscoso del Prado Martín (2011) performs a corpus-based measure of the inflectional complexity of six European languages and claims that there is a ‘strong degree of mutual dependence between morphological and syntactic information.’ As he shows, when information on word order is explicitly factored in, the apparent gradation in complexity across languages, as calculated on the basis of the number of inflected forms per word, disappears. He arrives at the conclusion that ‘inflectional morphology serves a role in reduction of uncertainty, simplifying the description of the whole grammar’ (p. 3528). Whether or not this be the case, this question—although of great importance also for cognitive approaches to complexity—is not within the scope of the present book. Rather, we are concerned with the second reading of morphological complexity, that is, complexity inside morphology.

Taking an inner-morphological perspective, we focus on which morphological phenomena can be considered complex or more complex than others and look at different degrees of complexity *within* morphology. Some authors have swiftly found an answer to this question, by identifying the core of morphological complexity in phenomena currently running under the heading of autonomous (or ‘pure’) morphology—including morphological entities and processes that are not extramorphologically motivated in a straightforward way, such as, for example, inflectional classes, allomorphy, patterns of syncretism, suppletion, etc. (Aronoff 1994; Maiden et al. 2011; Cruschina et al. 2013). For example, Baerman et al. (2015b: 4) consider morphological complexity as ‘the additional structure that cannot readily be reduced to syntax or phonology’. This extra layer of purely morphological structure, such as inflection classes in the Lithuanian example in

section 1.1, may attain an astonishing degree of gratuitous complexity, whereas the mere presence of (possibly elaborate) transparent and regular affixal expression of grammatical meaning, such as exemplified by Turkish, is of least relevance for the study of morphological complexity (see also a discussion of different aspects of complexity in the polysynthetic languages, traditionally assumed to be the hallmark of morphological complexity, by Dahl 2017 and Sadock 2017).

Of course, the decision to only focus on autonomous morphology has a great methodological advantage, as it provides a clear answer to the question we formulated in section 1.1, concerning the problematic demarcation of morphology and syntax. However, while we acknowledge that phenomena of pure morphology ('morphology by itself') do increase the complexity of morphology as a whole because they have no external motivation, morphology by itself, as it has been theorized, only includes inflection. This would imply that only inflection counts as the locus of complexity and it is a matter of fact that most of the literature published on this topic is exclusively devoted to inflection (see Baerman et al. 2015a, 2017; Baechler 2017). Definitions of morphological complexity (in quantitative terms) such as the number of morphosyntactic features that a language has and the morphological means that are used to realize these features (see below) conform to this view, for morphosyntactic features are typically realized by inflection.

As a matter of fact, work on the complexity of word formation processes is virtually missing in the literature, the only two exceptions known to us being a one-paragraph section in Nichols et al. (2006: 101–3) and Stump (2017: 70), each. Therefore, there is no study investigating whether inflection or word formation differ in their degree of complexity along one or another parameter. As Franz Rainer (personal communication, 2017) observes, 'a great number of asymmetries emerge between word formation and inflection with respect to different dimensions of complexity', such as the number of elements in the system, number of affixes in a word, or the complexity of allomorphy, among others. However, he notices, 'in the literature on the inflection-derivation divide (cf. Štekauer 2015), complexity has not been identified up to now as a possible dimension along which these two subcomponents of morphology might differ'. Lack of work on this specific topic might be due to multiple reasons: first, the boundaries between inflection and word formation are often fuzzy; second, word formation, with lexical enrichment as its central function and all its corollaries (e.g., importance of encyclopedia, semantic drift), is less neat and less automatic than inflection and more difficult to grasp (see Kusters 2003: 14–16); third—and crucially—the generally adopted metrics of morphological complexity (see section 1.3) mostly focus on formal criteria, thus lumping together categories of inflection and those of word formation under the general heading of *morphological* complexity. As we will see in more detail below, research in particular by Dahl (2004, 2009) and Trudgill (2009, 2011) has identified three major ingredients of synchronic



morphological complexity, which seem to apply to both inflection and word formation: (a) irregularity (e.g., allomorphy); (b) morphosemantic and morphotactic opacity (such a fusion of formatives, cumulative or portmanteau formatives, suppletion and non-linear suprasegmental feature realizations); and (c) syntagmatic redundancy (e.g., pleonastic affixation, see Gardani 2015).

### 1.3 How many complexities?

As we have seen in section 1.1, the linguistic literature on complexity is abundant, not least because '[h]ow to measure morphological complexity is itself an issue of some complexity' (Nichols 1992: 64). As Miestamo (2017: 229) has appropriately noticed, complexity refers either to 'something that is rich in internal composition (i.e. contains many parts as well as multiple and intricate connections between them), or to something that is difficult to do or to understand.' In the first case, complexity is an objective property of a linguistic system and therefore labeled 'objective complexity' (Dahl 2004: 2) or 'absolute complexity' (Miestamo 2008) or 'formal complexity' (Stump 2017); in the second case, complexity is conceived as cost/difficulty that a given linguistic system or structure causes to language users and labeled 'relative complexity' (Miestamo 2008, 2017) or 'psycholinguistic complexity' (Stump 2017). In the following, we will adopt Stump's terminology.

#### 1.3.1 Formal morphological complexity

Formal complexity can be subsumed under the following general definition of complexity provided by the philosopher Nicholas Rescher: 'Complexity is first and foremost a matter of the number and variety of an item's constituent elements and of the elaborateness of their interrelational structure, be it organizational or operational' (Rescher 1998: 1). In linguistics, we identify three principal directions in research on formal complexity, in terms of how it is conceptualized and measured: (1) quantitative approaches; (2) qualitative approaches; and (3) information-theoretic approaches.

Quantitative approaches conceive complexity in terms of the number of elements of which a given morphological entity consists, mainly inventory size and string length, or alternatively, the length of the rules necessary to describe a form. This quantitatively construed type of complexity, dubbed 'enumerative complexity' by Ackerman & Malouf (2013), is detectable both syntagmatically and paradigmatically. On the syntagmatic axis, it can be the before-mentioned average number of morphemes per word form (Greenberg 1954, 1960) or the maximal number of inflectionally expressed categories per verb (Bickel & Nichols 2005); this type corresponds to Rescher's *constitutional complexity*, viz. the '[n]umber of

constituent elements or components’ (Rescher 1998: 9). On the paradigmatic axis, enumerative complexity relates to the number of distinct inflectional classes for a given part-of-speech (i.e., allomorphy) or the number of cells in a paradigm corresponding to the realizations of different values of a given morphological feature (e.g., case); this type of complexity corresponds to Rescher’s *taxonomical complexity*, the ‘[v]ariety of constituent elements, i.e., number of different kinds of components in their physical configuration’ (Rescher 1998: 9). Up to fairly recent times, only enumerative complexity had featured prominently in the literature, especially in typologically oriented research; for example, it is only this kind of complexity that is represented in WALS (Haspelmath et al. 2005; Dryer & Haspelmath 2013), certainly due to practical reasons. In this respect, it is worth mentioning several works specifically addressing the issue of enumerative paradigmatic complexity, such as Rhodes (1987) on the different morphological makeup of large and small paradigms and a whole series of works by Carstairs-McCarthy, whose aim was to find constraints on enumerative complexity of inflectional classes in terms of the number of affixal allomorphs and their properties (see Carstairs 1983; Carstairs-McCarthy 1994, 1998, 2010). Another type of quantitative measure concerns not the number of the elements composing a morphologically complex form but rather the (minimum) size (or length) of the rules required to describe and generate such a form. This type of qualitative approach, often referred to as Kolmogorov complexity, resonates with the Rescher’s concepts of both *descriptive complexity* (the ‘[l]ength of the account that must be given to provide an adequate description of the system at issue’) and *generative complexity* (the ‘[l]ength of the set of instructions that must be given to provide a recipe for producing the system at issue’, Rescher 1998: 9) (cf. Dahl’s ‘minimum description length’, Chapter 13, this volume).

Qualitative approaches conceive complexity in terms of identifying those morphological patterns/elements that are complex or more complex than others. Proponents of qualitative approaches need to stipulate an unmarked, complexity-neutral ideal—a canon, often conceived as an isomorphic relation of content to form—upon which to construe hierarchies of complexity in terms of degrees of deviation from it. Most notably, work by Corbett (e.g., 2007, 2015) has propagated the notion of non-canonicity (both in inflection and derivation), which can be defined as any deviation from properties such as transparency, regularity, and form-function biuniqueness, as is manifested, for example, in non-phonological allomorphy of affixes and stems (Baerman et al. 2017: 100–7), overabundance (Thornton 2019), multiple (extended) exponence (Harris 2017), syncretism (Baerman et al. 2005), defectiveness (Baerman et al. 2010), and poly-functionality (Stump 2016: 228–51), let alone more dramatic deviations such as suppletion (Stump 2006a; Corbett 2007) or deponency (Baerman et al. 2007). Early discussions of non-canonicity and its possible interactions with enumerative complexity can be found in Plank (1986) and Carstairs (1987) in addition to

works already mentioned, while recently, Johanna Nichols (2009) has hinted at a possible metric of morphological complexity related to non-canonicity (a proposal she fully develops in Chapter 7, this volume). Most studies of non-canonical phenomena in morphology have focused on the paradigmatic axis; however, nothing *per se* precludes the application of this notion to syntagmatic phenomena, such as combinatorics and mutual order of affixes (here comes to mind the distinction between semantically driven layered organization of morphology vs. opaque templatic morphology; see Stump 2006b, Good 2016), concatenative vs. non-concatenative exponence, morphophonological transparency vs. opacity and other issues belonging to the domain of morphotactics. It remains an empirical as well as a conceptual question, though, which kind of morphotactic organization should be considered ‘canonical’ and ‘less complex’. For instance, in languages where affix order directly reflects semantics, it is usually possible to permute certain affixes depending on their mutual scope (Rice 2011; Mithun 2016); whether such deviations from fixed ordering constitute additional complexity is not at all obvious.

While teleologically different, also Natural Morphology (Dressler et al. 1987; Dressler & Kilani-Schoch 2016; Dressler 2019) is centered on the idea of deviation from a core.<sup>3</sup> Aiming at accounting for morphological preferences based on extralinguistic motivations, it theorizes a semiotically derived notion of naturalness, defined as the immediate, most unmarked, cognitively easiest, and thus universally preferred option. Conversely, naturalness-defining criteria determine deviation from the (most) natural option. This framework makes clear that other factors come to play a role in the conception and interpretation of morphological complexity, such as, for example, transparency vs. opacity of forms or morphotactic rules. As Hengeveld & Leufkens (2018: 141) observe, ‘languages may be complex, yet transparent, or simple, yet opaque’. To take the concrete case, the Turkish vs. Lithuanian data in Table 1.1 show that Turkish morphology is more complex in the sense that a single word form may potentially contain a high number of morphemes. At the same time, however, it is transparent in that every morpheme corresponds to one fixed meaning, while Lithuanian morphology is more opaque. In the framework of Natural Morphology, Dressler (2011) views unnaturalness as a source of complexity and morphological complexity as the sum of all morphological categories, rules, and inflectional classes of a language, including both productive and unproductive patterns. Distinguishing between productive and unproductive patterns, he considers morphological complexity a hyperonym of morphological richness, which is conceived only in terms of productive patterns (Dressler 2003: 47; see also Dressler, Kononenko, et al.

<sup>3</sup> Note that, while qualitatively oriented, both Natural Morphology and Canonical Typology are implicitly able to quantify degrees of complexity, computing the degree of deviation from the natural core or canon, respectively.

2019). This distinction between active and static parts of morphology, is, in our view, not only of crucial importance with respect to psycholinguistic approaches to complexity but also foundational of approaches focused on predictability, as we will see below.

Finally, information-theoretic approaches play down the role of combinatorics and construe morphological complexity in terms of predictability and entropy. Their development is intimately related to word-and-paradigm models of morphology, which consider inflectional systems as networks of implicative relations holding between fully-inflected word forms. Consequently, they aim to understand to what extent the choice of exponence for a given cell is predictable from any other information available to the speaker, with complexity being in an obvious inverse relation to predictability (cf. Finkel & Stump 2007, 2009; Stump & Finkel 2013). Ackerman & Malouf (2013) propose the term ‘integrative complexity’, based on the notion of entropy as ‘a measure of the reliability of guessing unknown forms on the basis of known ones’, that is, a measure of predictability. They move from the intuition that ‘speakers must generalize beyond their direct and limited experience of particular words’ (p.436) and posit a ‘Low Entropy Conjecture’: morphological systems, such as paradigms, in which conditional entropy among related word forms is low, are more efficient, as they ‘permit these crucial inferences to be made easily’ (p. 436) (cf. ‘Paradigm Structure Conditions’ of Wurzel 1989).<sup>4</sup> In other words, complexity derives from opaque intraparadigmatic relations, for opacity hampers the predictability and predictiveness among word forms in a lexeme’s paradigm. The ‘Low Entropy Conjecture’ is supported by recent studies on inflection class systems clearly violating the enumerative complexity-based constraints of the kind proposed by Carstairs-McCarthy (see Baerman 2012, 2016; Sims 2015).<sup>5</sup>

The approaches to formal morphological complexity surveyed thus far share the potential to seize the degree of complexity. However, some typological studies have pursued the topic without a focus on metrics. One line of investigation, for example, has concerned the relation of (certain aspects of) morphological complexity to any other typological parameters such as phonological systems (Shosted 2006; Fenk-Oczlon & Fenk 2008, 2014), word order (e.g., Sinnemäki 2008; Bentz & Christiansen 2013), among others. Other studies have focused on the differential elaboration of nominal and verbal morphology (e.g., Nichols 1986, 1992; Mithun 1988; Kibrik 2012). In this domain, there are still more open questions than established answers, partly because of the lack of consensus as regards the

<sup>4</sup> Also morphomic stem distributions have been interpreted in terms of predictive relations by Blevins (2016b: 123), a view partly criticized by Maiden (2018: 23–4).

<sup>5</sup> It is likely that a conception of complexity based on entropy applies better to inflection than word formation because inter-word relations are generally much more complex in inflectional than in derivational paradigms.

definition of the relevant aspects of complexity and the adequate ways of its measurement.

Still another line of research is concerned with the relation between morphological complexity and sociolinguistic typology. In section 1.1, we already mentioned the idea that pidgins and creoles are in general less complex than languages with a long history and uninterrupted transmission. More generally, in recent work (e.g., Trudgill 1997, 2009, 2011, 2017; Kusters 2003, 2008; McWhorter 2007, 2008; Lupyan & Dale 2010; Bentz & Winter 2013; Bentz et al. 2015; Bentz 2016), claims have been advanced that the overall degree of complexity as well as certain particular types of grammatical complexity correlate with such socioecological conditions of language use as high vs. low degree of contact, number of adult learners, size and geographic expansion of the speaker population, and some others (see also Tinitis 2014 for a behavioural experiment with a miniature artificial language). Significantly, most of such studies have focused on simplification caused by language contact (see Dorian 1978; McWhorter 2001; among many others), emphasizing that morphological complexity requires long-term periods of socioecological stability to develop (Dahl 2004). Nevertheless, studies exist showing that certain types of language contact (e.g., those involving stable childhood multilingualism) can contribute to preserve complex patterns (Trudgill 2011; Mithun 2015) and even result in increase rather than loss of morphological complexity due to borrowing and contact-induced grammaticalization (see Vanhove 2001; Aikhenvald 2002, 2003a; de Groot 2008; Loporcaro 2018; Loporcaro et al. forthcoming). Also processes of language genesis brought about by language contact do not necessarily come along with morphological simplification. In a study on the rapid birth of a new mixed language in Australia, Gurindji Kriol, from the admixture of Gurindji and Kriol, Meakins et al. (2019) demonstrate that there was no preferential adoption into Gurindji Kriol of less complex variants and that, in fact, complex Kriol variants were more likely to be adopted than simpler Gurindji equivalents. Given that Gurindji Kriol is the primary language of the younger generation in the Gurindji community, Meakins et al. interpret these results in light of the fact that the acquisition of morphology in morphologically complex languages is less challenging for children than for adults (cf. also Miestamo 2008). The issue of ease vs. difficulty of processing in language acquisition leads us over to the second main type of morphological complexity introduced in section 1.3, viz. psycholinguistic morphological complexity.

### 1.3.2 Psycholinguistic morphological complexity

As we have seen in the previous section, also Natural Morphology and Ackerman & Malouf's (2013) integrative complexity appeal to ease in processing and

production, as a key to the interpretation of what is complex in morphology. These models build a bridge to the second type of approach to morphological complexity, psycholinguistic morphological complexity, that focuses on the cost/difficulty that a given linguistic system or structure causes to language users, that is, computational effort. Psycholinguistic approaches to morphological complexity assume that the degree of ease vs. cost of a morphological pattern in processing and production correlates with its degree of complexity. This line of research draws evidence from three areas of study: adult processing, L1 and L2 acquisition, and the performance of artificial automatic learning.

One line of investigation within this field has developed around the equation of complexity with low parsability (Stump 2017). In this respect, the debate on the balance between memory retrieval and online computation in language production is particularly relevant. In the context of the debate on lexical access and specifically of the so called English past-tense debate (for references, cf. Ambridge & Lieven 2011: 169–87), Pinker & Prince (1988) argued for a ‘dual-route’ model that could account for both irregular forms (*feel/felt*), which are memorized as wholes in the mental lexicon, and an online rule of default responsible for morphemic concatenation (*walk/walked*) (see also Gardani et al. 2019: 24–7). At the same time, it was observed that regular forms with high frequency can also be stored in the mental lexicon (Alegre & Gordon 1999a: 56). However, the fact that both morphologically less complex (i.e., highly parsable) and morphologically complex (i.e., low parsable) word forms can be lexically stored leads to concluding that complexity *qua* parsability does not correlate with processing cost. The role of frequency in lexical access has been stressed by nobody else as vigorously as by Joan Bybee (1985, 1995, 2007). Consequently, the conception of complexity focusing on system complexity, in which irregularity is viewed as an ingredient of complexity, is incompatible with the results of studies on processing complexity, which have shown that irregularity does not *per se* constitute an obstacle for the language user, as it can be defeated by frequency.

Studies in language acquisition, too, do not necessarily support the hypothesis that psycholinguistic complexity and formal complexity coincide. For example, in a crosslinguistic study on the relationship between the morphological complexity of child-directed speech and the speed of morphological acquisition in children, Xanthos et al. (2011) found a strong positive correlation between inflectional complexity of the input and the speed of acquisition. This result seems to suggest that the more morphology in the input, the easier the morphology is to acquire. According to Kelly et al. (2014), formal complexity such as heavy synthesis in polysynthetic languages is not a challenge for L1 acquisition if the templatic sequence in which formatives are used is regular, and Allen (2017) also reports longitudinal studies showing that Inuit children acquire elaborate derivational and inflectional morphology early and with ease. (See also Stoll et al. 2017, on the acquisition of verb morphology in polysynthetic Chintang.) Other acquisitional

studies construe formal complexity not as *constitutional complexity* but as *descriptive complexity*. For example, in a crosslinguistic study on the emergence and early development of synthetic compounds, Dressler, Sommer-Lolei, et al. (2019) provide evidence that synthetic compounds (i.e., compounds in which the head is derived from a verb and the non-head is an argument of this verb) such as German *Nussknacker* ‘nutcracker’ are acquired later than comparable three-constituent compounds. They interpret this later acquisition as a sign of higher complexity: equating the degree of complexity with the number of rules involved, synthetic compounds, which are derived by both a rule of compounding and a rule of derivation, are more complex than words derived either only by compounding or only by derivation rules.

Besides that, numerous studies, both typological and experimental (e.g., Wray & Grace 2007; Lindström 2008; Trudgill 2011; Bentz et al. 2015; Bentz & Berdicevskis 2016; Atkinson et al. 2018), show that morphological complexity, while being an obstacle to L2 acquisition in adults and hence subject to erosion, regularization, and loss in those situations of language contact that involve massive adult acquisition, does not, in fact, constitute a severe challenge for L1 acquisition in children. Moreover, Lupyan & Dale (2010) have hypothesized that infants, in fact, benefit from the increased redundancy brought about by morphological complexity in languages used in small groups.

Psycholinguistic approaches to morphological complexity have attracted criticisms mainly of two sorts. One problem is that the perception of ease or, conversely, difficulty, might vary among language users, and therefore might not be an objective metric; the other problem is that ‘psycholinguistic background research on the processing cost and learning difficulty of a given grammatical phenomenon’ might not be enough (Miestamo 2017: 232). As a matter of fact, the correlation between ‘our intuitive notion of morphological complexity and actual evidence of the pace of acquisition of more or less complex inflectional systems in child language’ (Marzi et al. 2018) seems to be poor. In order to solve at least the objectivity issue, recent research in morphological complexity has expanded into the field of neurobiologically inspired computational models of processing and learning. In one such study, Marzi et al. (2018) have focused on the performance of recurrent self-organizing neural networks trained to learn languages, in order to understand how degrees of inflectional complexity affect word processing strategies. They found a significant systematic correlation between regularity and predictability of verb forms and interpret the evidence ‘as the result of a balancing act between two potentially competing communicative requirements’, viz. recognition (leading to a maximally contrastive system) and production (leading to maximally predictable forms).

## 1.4 About this volume

In section 1.1, we identified four issues we deem among the most urgent to solve in research on morphological complexity. In order to tackle these issues in a principled way, we convened a dedicated workshop ‘Morphological Complexity: Empirical and Cross-Linguistic Approaches’ at the 48th *Societas Linguistica Europaea* (SLE) meeting in Leiden in 2015. The present volume is a collection of original research papers consisting in equal measure of papers delivered at the workshop and of invited contributions. (Each chapter was subject to a threefold reviewing process consisting of an anonymous external reviewing, a non-anonymous internal review performed by a fellow contributor, and comments by the editors.) The volume features: (a) various theoretical, methodological, and typological perspectives on morphological complexity (from ‘classic’ morphological description to experimental and information-theoretic approaches); (b) both detailed investigations of individual languages and wider crosslinguistic studies; (c) synchronic and diachronic analyses; (d) a broad coverage of topics including structural and sociolinguistic issues, such as the development of morphological complexity under different sociohistorical conditions (prominently, language contact); (e) empirical evidence drawn from languages from all continents and belonging to a number of typologically diverse language families. Unfortunately, the volume does not cover the complexity of word formation and the complexity of sign language morphology. We hope that future research will take care of these issues.

The volume, introduced by the present chapter, consists of three parts organized according to the chapters’ main focus and scope, and is closed by a discussion in Chapter 13 by Östen Dahl on the volume’s contributions and on the minimum description length approach. Part I includes five chapters dealing with issues of morphological complexity from a language-specific perspective. **Jeff Parker** and **Andrea Sims**’s Chapter 2, ‘Irregularity, paradigmatic layers, and the complexity of inflection class systems: A study of Russian nouns’ follow Stump & Finkel’s (2013: 55) definition of complexity of an inflection class system as ‘the extent to which the system inhibits motivated inferences about a lexeme’s full paradigm of realized cells [...]’. Using data from Russian, the authors explore the implications of gradient (ir)regularity for measuring and comparing the complexity of inflection class systems. They find that some, but not all, less regular inflectional patterns significantly increase the complexity of the system, but that the increased complexity is mitigated by structural and distributional properties of the inflectional system. In Chapter 3, ‘Demorphologization and deepening complexity in Murrinhpatha’, **John Mansfield** and **Rachel Nordlinger** investigate diachronic changes in the complexity of verb inflection in Murrinhpatha, a polysynthetic non-Pama-Nyungan language of northern Australia, which displays a high level of



complexity in terms of unpredictable analogical relations in inflectional exponence. The authors demonstrate that recent changes in inflection allomorphy blur the boundaries of stem and affix, resulting in gradual demorphologization and increasingly unpredictable exponence. **Felicity Meakins** and **Sasha Wilmoth's** Chapter 4, 'Overabundance resulting from language contact: Complex cell-mates in Gurindji Kriol' examines the development of overabundance (see above) in the subject-marking system of Gurindji Kriol, an Australian mixed language. By means of generalized linear mixed models, which probabilistically measure the use vs. non-use of a feature, the authors interpret the resurgence of overabundance as an instance of complexification, providing a counterexample to the commonly held view that contact always results in reduction of morphological complexity. In Chapter 5, 'Derivation and the morphological complexity of three French-based creoles', **Fabiola Henri**, **Gregory Stump**, and **Delphine Tribout** take a fresh look at a controversial assumption in creole research, namely the widespread claim of poverty of creole morphology (see references in section 1.1). Analysing deverbal nominalizations via conversion in Mauritian, Guadeloupean, and Haitian, and assessing the integrative complexity of the respective morphological systems' derivational relations, the authors demonstrate that the complexity of the derivational relations in these creoles attains the same degree as those of the lexifier, French. Finally, in Chapter 6, 'Simplification and complexification in Wolof noun morphology and morphosyntax', **Michele Loporcaro** explores the diachronic dynamics of morphological complexity in the nominal morphology and morphosyntax of Wolof, an Atlantic language of Senegal. Loporcaro shows that, while changes such as the emergence of inflectional irregularities produced a local increase in complexity in noun and determiner morphology, overall the morphology of Wolof is less complex than that of closely related Atlantic languages. Loporcaro provides an explanation of the simplifying tendencies in sociolinguistic terms, referring to the correlation between simplification and prestige in the Wolof speech community. Here, speaking correctly is associated with low-caste in rural settings, while linguistic prestige is achieved through language mixing, extensive borrowing, and, crucially, the simplification, via paradigmatic leveling, of inherited alternations impacting on both the morphology and the morphosyntax of the language.

Part II consists of three chapters approaching morphological complexity from a crosslinguistic perspective. **Johanna Nichols's** Chapter 7, 'Canonical complexity' considers not size but non-transparency the locus of morphological complexity and adopts the notion of (non-)canonicity to define crosslinguistically comparable variables, capture non-transparency, and restrict the comparanda to a manageable sample. **Francesca Di Garbo's** Chapter 8, 'The complexity of grammatical gender and language ecology' is a crosslinguistic investigation of the evolution of gender agreement patterns, which are viewed as an instance of morphological complexity, and its ties to sociohistorical factors. Analysing a sample of thirty-six languages in

a qualitative fashion, the author is able to establish association between multiple patterns of change, such as loss, reduction, emergence, and expansion of gender, on the one hand, and various sociohistorical situations, ranging from demographic structure (population size) to language policies and language attitudes, on the other. In Chapter 9, 'Morphological complexity, autonomy, and areality in western Amazonia', **Adam Tallman** and **Pattie Epps** investigate the relationship between morphological complexity and areality-building processes across Amazonia. The authors observe (a) morphological proliferation in four domains (nominal classification, tense, evidentiality, and valency-adjusting mechanisms) across unrelated western Amazonian languages; (b) high system complexity across these domains; and (c) a link between complexity and language contact. They conclude that factors often associated with morphological complexity are in fact not necessarily morphological, as a large percentage of bound morphemes in these languages display ambiguity between morphology and syntax.

The three chapters in Part III address the problem of morphological complexity from an acquisitional perspective. In Chapter 10, 'Radical analyticity as a diagnostic of adult acquisition', **John McWhorter** proposes that languages can become radically analytic, that is, completely or near-completely void of inflectional morphology, only via incomplete acquisition. He draws evidence from West Africa and Southeast Asia and shows that the relevant languages score more like creoles than like older languages. In McWhorter's view, second-language acquisition decisively reduces grammatical complexity (in terms of bound inflection) to a degree that ordinary language change cannot. The author suggests that radical analyticity can be treated as evidence that such second-language acquisition occurred in the history of the language, and thus, synchronic morphological complexity can serve as a clue to the past of a language, in the absence of historical documentation. Also Chapter 11, 'Different trajectories of morphological overspecification and irregularity under imperfect language learning' by **Aleksandrs Berdicevskis** and **Arturs Semenuks** deals with imperfect language learning, partly supporting McWhorter's conclusion. By reference to the editors' fourth question (see section 1.1), the authors investigate how morphological complexity is related to socioecological parameters. They run an iterated artificial language learning experiment, tracing the change of two facets of complexity: overspecification and irregularity. They find that the presence of imperfect learners in a transmission chain leads to a much stronger decrease in morphological overspecification. Overspecification, however, is not usually fully eliminated, and its partial decrease often leads to increased irregularity, thus making languages simpler in one respect, but more complex in another. Additionally, higher irregularity decreases learnability, and this effect is stronger for imperfect learners compared to normal learners. Thus, the relationships between these two facets of morphological complexity and language learnability have their own complexities. Finally, **Marianne Mithun's** Chapter 12, 'Where is morphological complexity?' is firmly anchored in the debate on the

psycholinguistic reality of complexity. Examining the speech of native speakers of two North American languages influenced to varying degrees by contact with English, Mithun observes that even native speakers with limited proficiency produce morphological structures that are highly complex for the analyst, with large numbers of morphemes per word, fusion, and irregularity. She argues that the distinction between what linguists consider complex and what speakers find difficult (or easy) to acquire or preserve, is not surprising if one takes the view that morphology in these languages is not processed and learned online, but rather in chunks.

As we said, **Östen Dahl** closes the volume by critically reviewing the volume's chapters and seeing how the concepts of morphological complexity applied therein relate to the 'minimum description length approach'.

Turning now to the four research questions (section 1.1) the contributors to this volume focused on, we observe that (question 1) it is possible to define morphological complexity, even though the demarcation between morphology and syntax is in many cases fuzzy (see Tallman & Epps, Chapter 9, this volume). At the same time, however, we observe that different authors provide and apply different definitions, also within this volume. Seemingly, the very existence of multiple definitions of morphological (and morphosyntactic) complexity is related not only to the collocation of a specific linguistic feature along the grammar continuum (from pure morphology to morphosyntax), but also to the diversity of phenomena and types of complexity. This observation leads us to answer question 2, namely whether it is possible to arrive at a uniform notion of morphological complexity. We concur with Dahl (Chapter 13, this volume), that a set of shared notions and standard works that everybody refers to has not yet been reached. Thus our answer to question 2 is no, and the motivation for it is that the linguistic facts are so multifarious and diverse that not one, but many different complexities can be detected (whence the plural in this chapter's title).

Then we asked (question 3) whether it is possible to arrive at a crosslinguistically applicable and theoretically founded measure of morphological complexity. Berdicevskis et al. (2018) have recently pointed to the absence of a gold standard. We, too, have observed that there exists neither a commonly accepted definition of morphological complexity nor a uniform measure thereof. Admittedly, the growing understanding of the multifaceted nature of morphological complexity is much in line with the multivariate nature of typological comparison. So, perhaps we asked the wrong question. Probably, the quest for a unique measure is an epistemological fallacy. Once we have acknowledged that there is not one morphological complexity, but many morphological complexities, we should identify *a set* of complementary specific measures to apply crosslinguistically. Then, the only reasonable typological approach to morphological complexity is to break it down into individual variables (if necessary, each with its quantitative measure) and then look for mutual correlations between such variables or for their connections with other parameters of crosslinguistic variation. Of course, cumulative

measures such as the one developed by Nichols (Chapter 7, this volume) are also possible, but they are not holistic, either, and in many cases are based on a significant reduction of empirical data.

In conclusion (question 4), we wanted to investigate the role of such extra-morphological factors as diachronic development and (in)stability, susceptibility to loss vs. spread in situations of language contact, and, generally, of sociolinguistic and socioecological parameters, in affecting morphological complexity. As several chapters in this volume have demonstrated, in spite of at times diverging results, the study of the correlation between morphological complexity and extralinguistic factors such as the role of language contact or speakers' sociolinguistic attitudes, is fruitful and promising.

Of course, the answers we have provided here are *per force* partial and by far not definitive, as much more case studies and comparative evidence are necessary to get to a reliable picture of such complex phenomena as morphological complexities. We hope that future research will pursue these pathways.

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## References

- Abel, Jennifer (2006). 'That crazy idea of hers: The English double genitive as a focus construction', *Canadian Journal of Linguistics* 51(1): 1–14. doi:10.1017/S0008413100003790
- Aboh, Enoch O. (2009). 'Competition and selection: That's all!', in Enoch O. Aboh and Norval Smith (eds), *Complex Processes in New Languages*. Amsterdam: John Benjamins, 317–44. doi:10.1075/cjll.35.20aboh
- Aboh, Enoch O. (2015). *The Emergence of Hybrid Grammars*. Cambridge: Cambridge University Press. doi:10.1017/CBO9781139024167
- Aboh, Enoch O. and Umberto Ansaldi (2007). 'The role of typology in language creation', in Umberto Ansaldi, Stephen Matthews, and Lisa Lim (eds), *Deconstructing Creole*. Amsterdam: John Benjamins, 39–66. doi:10.1075/tsl.73.05abo
- Abouda, Lotfi and Marie Skrovec (2015). 'Du rapport entre formes synthétique et analytique du futur. Étude de la variable modale dans un corpus oral micro-diachronique', *Revue de Sémantique et Pragmatique* 38: 35–57.
- Abouda, Lotfi and Marie Skrovec (2017). 'Du rapport micro-diachronique futur simple/ futur périphrastique en français moderne. Étude des variables temporelles et aspectuelles', *Corela*, HS-21. URL: <http://corela.revues.org/4804>
- Ackerman, Farrell, James Blevins, and Robert Malouf (2009). 'Parts and wholes: Implicative patterns in inflectional paradigms', in James P. Blevins and Juliette Blevins (eds), *Analogy in Grammar: Form and Acquisition*. Oxford: Oxford University Press, 54–82.
- Ackerman, Farrell and Robert Malouf (2013). 'Morphological organization: The Low Conditional Entropy Conjecture', *Language* 89(3): 429–64. doi:10.1353/lan.2013.0054.
- Ackerman, Farrell and Robert Malouf (2015). 'The No Blur Principle effects as an emergent property of language systems', *Proceedings of the 41st Annual Meeting of the Berkeley Linguistics Society*. Berkeley, CA, 1–14. doi:10.20354/B4414110014
- Ackerman, Farrell and Robert Malouf (2016). 'Word and pattern morphology: An information-theoretic approach', *Word Structure* 9: 125–31. doi:10.3366/word.2016.0090
- Agbetsoamedo, Yvonne (2014). 'Noun classes in Sele', *The Journal of West African Languages* 41: 95–124.
- Aglarov, M. A. (1988). *Sel'skaja obsčina v Nagornom Dagestane v XVII-načale XIX v.* Moscow: Nauka.
- Aikhenvald, Alexandra Y. (2000). *Classifiers: A Typology of Noun Categorization Devices*. Oxford: Oxford University Press.
- Aikhenvald, Alexandra Y. (2002). *Language Contact in Amazonia*. Oxford: Oxford University Press.
- Aikhenvald, Alexandra Y. (2003a). 'Mechanisms of change in areal diffusion: New morphology and language contact', *Journal of Linguistics* 39(1): 1–29. doi:10.1017/S0022226702001937
- Aikhenvald, Alexandra Y. (2003b). *A Grammar of Tariana*. Cambridge: Cambridge University Press.
- Aikhenvald, Alexandra Y. (2004). *Evidentiality*. Oxford: Oxford University Press.
- Aikhenvald, Alexandra Y. and Robert M. W. Dixon (1998). 'Evidentials and areal typology: A case study from Amazonia', *Language Sciences* 20: 241–57.

- Aikhenvald, Alexandra Y. and R. M. W. Dixon (eds) (2006). *Grammars in Contact: A Cross-Linguistic Typology*. Oxford: Oxford University Press.
- Aikhenvald, Alexandra Y. and Diana Green (1998). 'Palikur and the typology of classifiers', *Anthropological Linguistics* 40: 429–80.
- Åkerberg, Bengt (2012). *Älvdalsk grammatik*. Älvdalen: Ulum Dalska.
- Albright, Adam and Bruce Hayes (2002). 'Modeling English past tense intuitions with minimal generalization', in M. Maxwell (ed.), *Proceedings of the 6th Meeting of the ACL Special Interest Group in Computational Phonology July 2002*. New Brunswick, NJ: Association for Computational Linguistics, 58–69.
- Albright, Adam and Bruce Hayes (2003). 'Rules vs. analogy in English past tenses: A computational/experimental study', *Cognition* 90(2): 119–61.
- Alegre, Maria and Peter Gordon (1999a). 'Frequency effects and the representational status of regular inflections', *Journal of Memory and Language* 40(1): 41–61.
- Alegre, Maria and Peter Gordon (1999b). 'Rule-based versus associative processes in derivational morphology', *Brain and Language* 68(1–2): 347–54.
- Allen, Shanley E. M. (2017). 'Polysynthesis in the acquisition of the Inuit languages', in Michael Fortescue, Marianne Mithun, and Nicholas Evans (eds), *The Oxford Handbook of Polysynthesis*. Oxford: Oxford University Press, 449–72.
- Alleyne, Mervin (1996). *Syntaxe historique créole*. Paris: Editions Karthala.
- Ambrazas, Vytautas, Emma Geniušienė, Aleksas Girdenis, Nijolė Sližienė, Dalija Tekorienė, Adelė Valeckienė, and Elena Valiulytė. 2006. *Lithuanian Grammar*. 2nd ed. Vilnius: Baltos Lankos.
- Ambridge, Ben and Elena V. M. Lieven (2011). *Child Language Acquisition*. Cambridge: Cambridge University Press.
- Anderson, Stephen R. (1992). *A-Morphous Morphology*. Cambridge: Cambridge University Press.
- Anderson, Stephen R. (2015a). 'Dimensions of morphological complexity', in Matthew Baerman, Dunstan Brown, and Greville G. Corbett (eds), *Understanding and Measuring Morphological Complexity*. Oxford: Oxford University Press, 11–26. doi:10.1093/acprof:oso/9780198723769.003.0002
- Anderson, Stephen R. (2015b). 'The morpheme: Its nature and use', in Matthew Baerman (ed.), *The Oxford Handbook of Inflection*. Oxford: Oxford University Press, 11–34.
- Arika, Ann Lindvall (2012). 'Glimpses of the linguistic situation in Solomon Islands'. Paper given at the 6th international conference on 'Languages, E-Learning and Romanian Studies'.
- Arka, Wayan (2011). *A Rongga-English Dictionary with English-Rongga Wordlist*. Jakarta: Penerbit Universitas Atma Jaya.
- Arkadiev, Peter (2020). 'Morphology in typology: Historical retrospect, state of the art, and prospects', in Mark Aronoff (ed.), *Oxford Research Encyclopedia of Linguistics*. New York: Oxford University Press. doi: 10.1093/acrefore/9780199384655.013.626
- Arkadiev, Peter, Axel Holvoet, and Björn Wiemer (2015). 'Introduction: Baltic linguistics—State of the art', in Peter Arkadiev, Axel Holvoet, and Björn Wiemer (eds), *Contemporary Approaches to Baltic Linguistics*. Berlin: De Gruyter Mouton, 1–109.
- Arkadiev, Peter and Marian Klammer (2019). 'Morphological theory and typology', in Francesca Masini and Jenny Audring (eds), *The Oxford Handbook of Morphological Theory*. Oxford: Oxford University Press, 435–54.
- Armand, Alain (2014). *Dictionnaire créol réunionnais français*. Saint-André (Réunion): Epica.

- Arnott, David Whitehorn (1970). *The Nominal and Verbal Systems of Fula*. Oxford: Clarendon.
- Aronoff, Mark (1994). *Morphology by Itself: Stems and Inflectional Classes*. Cambridge, MA: The MIT Press.
- Aronoff, Mark (1998). 'Isomorphism and monotonicity: Or the disease model of morphology', in Steven Lapointe, Diane Brentari, and Patrick Farrell (eds), *Morphology and Its Relation to Phonology and Syntax*. Stanford, CA: CSLI Publications, 411–18.
- Aronoff, Mark (2015). 'Thoughts on morphology and cultural evolution', in Laurie Bauer, Livia Körtvélyessy, and Pavol Štekauer (eds), *Semantics of Complex Words*. Cham: Springer, 277–88. doi:10.1007/978-3-319-14102-2\_13
- Aski, Janice M. (1995). 'Verbal suppletion: An analysis of Italian, French and Spanish *to go*', *Linguistics* 33(3): 403–32. doi:10.1515/ling.1995.33.3.403
- Atkinson, Mark, Kenny Smith, and Simon Kirby (2018). 'Adult learning and language simplification', *Cognitive Science* 42(8): 2818–54. doi:10.1111/cogs.12686
- Audring, Jenny (2014). 'Gender as a complex feature', *Language Sciences* 43: 5–17. doi:10.1016/j.langsci.2013.10.003
- Audring, Jenny (2017). 'Calibrating complexity: How complex is a gender system?', *Language Sciences* 60: 53–68. doi:10.1016/j.langsci.2016.09.003
- Audring, Jenny (2019). 'Canonical, complex, complicated?', in Francesca Di Garbo, Bruno Olsson, and Bernhard Wälchli (eds), *Grammatical Gender and Linguistic Complexity*, vol. I: *General Issues and Specific Studies*. Berlin: Language Science Press, 15–52. URL: <http://langsci-press.org/catalog/book/223>
- Azen, Razia and Nicole Traxel (2009). 'Using dominance analysis to determine predictor importance in logistic regression', *Journal of Educational and Behavioral Sciences* 34(3): 319–47. doi:10.3102/1076998609332754
- Baayen, R. Harald (2001). *Word Frequency Distributions*. Dordrecht: Kluwer Academic Publishers.
- Baayen, R. Harald (2007). 'Storage and computation in the mental lexicon', in Gonia Jarema and Gary Libben (eds), *The Mental Lexicon: Core Perspectives*. Amsterdam: Elsevier, 81–104.
- Baayen, R. Harald (2008). *Analyzing Linguistic Data: A Practical Introduction to Statistics Using R*. Cambridge: Cambridge University Press.
- Baayen, R. Harald, Rochelle Lieber, and Robert Schreuder (1997). 'The morphological complexity of simplex nouns', *Linguistics* 35: 861–77. doi:10.1515/ling.1997.35.5.861
- Baayen, R. Harald, Petar Milin, Dusica Filipović Đurđević, Peter Hendrix, and Marco Marelli (2011). 'An amorphous model for morphological processing in visual comprehension based on naive discriminative learning', *Psychological Review* 118(3): 438–81. doi:10.1037/a0023851
- Baayen, R. Harald, Lee H. Wurm, and Joanna Aycock (2007). 'Lexical dynamics for low-frequency complex words: A regression study across tasks and modalities', *The Mental Lexicon* 2(3): 419–63. doi:10.1075/ml.2.3.06baa
- Babou, Cheikh Anta and Michele Loporcaro (2016). 'Noun classes and grammatical gender in Wolof', *Journal of African Languages and Linguistics* 37(1): 1–57. doi:10.1515/jall-2016-0001
- Baechler, Raffaella (2017). *Absolute Komplexität in der Nominalflexion*. Berlin: Language Science Press. URL: <http://langsci-press.org/catalog/book/134>
- Baechler, Raffaella and Guido Seiler (eds) (2016). *Complexity, Isolation, and Variation*. Berlin: De Gruyter.

- Baerman, Matthew (2012). 'Paradigmatic chaos in Nuer', *Language* 88(3): 467–94. doi:10.1353/lan.2012.0065
- Baerman, Matthew (2016). 'Seri verb classes: Morphosyntactic motivation and morphological autonomy', *Language* 92(4): 792–823. doi:10.1353/lan.2016.0073
- Baerman, Matthew, Dunstan Brown, and Greville G. Corbett (2005). *The Syntax-Morphology Interface: A Study of Syncretism*. Cambridge: Cambridge University Press.
- Baerman, Matthew, Dunstan Brown, and Greville G. Corbett (2010). 'Morphological complexity: A typological perspective'. Ms, Surrey Morphology Group, University of Surrey. URL: <http://epubs.surrey.ac.uk/814702/>
- Baerman, Matthew, Dunstan Brown, and Greville G. Corbett (eds) (2015a). *Understanding and Measuring Morphological Complexity*. Oxford: Oxford University Press.
- Baerman, Matthew, Dunstan Brown, and Greville G. Corbett (2015b). 'Understanding and measuring morphological complexity: An introduction', in Matthew Baerman, Dunstan Brown, and Greville G. Corbett (eds), *Understanding and Measuring Morphological Complexity*. Oxford: Oxford University Press, 3–10.
- Baerman, Matthew, Dunstan Brown, and Greville G. Corbett (2017). *Morphological Complexity*. Cambridge: Cambridge University Press.
- Baerman, Matthew, Greville G. Corbett, and Dunstan Brown (eds) (2010). *Defective Paradigms: Missing Forms and What They Tell Us*. Oxford: Oxford University Press and British Academy.
- Baerman, Matthew, Greville G. Corbett, Dunstan Brown, and Andrew Hippisley (eds) (2007). *Dependency and Morphological Mismatches*. Oxford: Oxford University Press and British Academy.
- Baissac, Charles (1880). *Etudes du patois mauricien*. Nancy: Imprimerie Berger-Levrault.
- Baker, Philip (1972). *Kreol: A Description of Mauritian Creole*. Ann Arbor: Karoma.
- Baker, Philip and Chris Corne (1982). *Isle de France Creole: Affinities and Origins*. Ann Arbor, MI: Karoma.
- Bakker, Peter (1997). *A Language of Our Own: The Genesis of Michif, the Mixed Cree-French Language of the Canadian Métis*. Oxford: Oxford University Press.
- Bakker, Peter (2003). 'Mixed languages as autonomous systems', in Yaron Matras and Peter Bakker (eds), *The Mixed Language Debate: Theoretical and Empirical Advances*. Berlin: Mouton de Gruyter, 107–50.
- Bakker, Peter (2013). 'Michif', in Susanne Maria Michaelis, Philippe Maurer, Martin Haspelmath, and Magnus Huber (eds), *The Atlas and Survey of Pidgin and Creole Languages*, vol. 3: *Contact Languages Based on Languages from Africa, Australia, and the Americas*. Oxford: Oxford University Press, 158–65.
- Bakker, Peter (2014). 'Creolistics: Back to square one?', *Journal of Pidgin and Creole Languages* 29: 177–94. doi:10.1075/jpcl.29.1.08bak
- Bakker, Peter, Aymeric Daval-Markussen, Mikael Parkvall, and Ingo Plag (2011). 'Creoles are typologically distinct from non-creoles', *Journal of Pidgin and Creole Languages* 26(1): 5–42. doi:10.1075/jpcl.26.1.02bak
- Balode, Laimute and Axel Holvoet (2001). 'The Latvian language and its dialects', in Östen Dahl and Maria Koptjevskaja-Tamm (eds), *The Circum-Baltic Languages: Typology and Contact*, vol. 1: *Past and Present*. Amsterdam: John Benjamins, 3–40.
- Bao Diop, Sokhna (2015). 'Les classes nominales en nyun gunyamolo', in Denis Creissels and Konstantin Pozdniakov (eds), *Les classes nominales dans les langues atlantiques*. Köln: Köppe, 371–405.
- Baptista, Marlyse (2003a). 'Inflectional plural marking in creoles and pidgins: A comparative study', in Ingo Plag (ed.), *The Phonology and Morphology of Creole Languages*. Tübingen: Niemeyer, 315–32.



- Baptista, Marlyse. (2003b). 'Number inflection in creole languages', *Interface* 6: 3–26.
- Becher, Jutta (2001). *Untersuchungen zum Sprachwandel im Wolof aus diachroner und synchroner Perspektive*. University of Hamburg PhD dissertation.
- Beier, Christine, Lev Michael, and Joel Sherzer (2002). 'Discourse forms and processes in indigenous lowland South America: An areal-typological perspective', *Annual Review of Anthropology* 31: 121–45. doi:10.1146/annurev.anthro.31.032902.105935
- Bendor-Samuel, John Theodore (ed.) (1989). *The Niger-Congo Languages: A Classification and Description of Africa's Largest Language Family*. Lanham, MD: University Press of America, by arrangement with the Summer Institute of Linguistics (SIL).
- Bentley, W. Holman (1887). *Dictionary and Grammar of the Kikongo Language*. London: Trübner & Co.
- Bentz, Christian (2016). 'The low-complexity-belt: Evidence for large-scale language contact in human pre-history?', in Sean G. Roberts, Christine Cuskley, Luke McCrohon, Lluís Barceló-Coblijn, Olga Feher, and Tessa Verhoef (eds), *The Evolution of Language: Proceedings of the 11th International Conference (EVLANG11)*. doi:10.17617/2.2248195
- Bentz, Christian, Dimitrios Alikaniotis, Michael Cysouw, and Ramon Ferrer-i-Cancho (2017). 'The entropy of words—Learnability and expressivity across more than 1000 languages', *Entropy* 19: 275. doi:10.3390/e19060275
- Bentz, Christian and Aleksandrs Berdicevskis (2016). 'Learning pressures reduce morphological complexity: Linking corpus, computational and experimental evidence', in Dominique Brunato, Felice Dell'Orletta, Giulia Venturi, Thomas François, and Philippe Blache (eds), *Proceedings of the Workshop 'Computational Linguistics for Linguistic Complexity (CL4LC)'*. Osaka, Japan, 222–32.
- Bentz, Christian and Morten H. Christiansen (2013). 'Linguistic adaptation: The trade-off between case marking and fixed word orders in Germanic and Romance languages', in Feng Shi and Gang Peng (eds), *Eastward Flows the Great River: Festschrift in Honor of Professor William S-Y. Wang on his 80th Birthday*. Hong Kong: City University of Hong Kong Press, 45–61.
- Bentz, Christian, Annemarie Verkerk, Douwe Kiela, Felix Hill, and Paul Buttery (2015). 'Adaptive communication: Languages with more non-native speakers tend to have fewer word forms', *PLoS ONE* 10(6): e0128254. doi:10.1371/journal.pone.0128254
- Bentz, Christian and Bodo Winter (2013). 'Languages with more second language learners tend to lose nominal case', *Language Dynamics and Change* 3: 1–27. doi:10.1163/22105832-13030105
- Berdicevskis, Aleksandrs, Çağrı Çöltekin, Katharina Ehret, Kilu von Prince, Daniel Ross, Bill Thompson, Chunxiao Yan, Vera Demberg, Gary Lupyan, Taraka Rama, and Christian Bentz (2018). 'Using universal dependencies in cross-linguistic complexity research', in Marie-Catherine de Marneffe, Teresa Lynn, and Sebastian Schuster (eds), *Proceedings of the Second Workshop on Universal Dependencies (UDW 2018)*. Brussels: Association for Computational Linguistics, 8–17.
- Berdicevskis, Aleksandrs and Arturs Semenuks (submitted). 'Imperfect language learning reduces morphological overspecification: Experimental evidence'.
- Bernini-Montbrand, Danièle, Ralph Ludwig, Hector Pouillet, and Sylviane Telchid (2013). *Dictionnaire créole-français Guadeloupe, avec un abrégé de grammaire créole, un lexique français-créole, les comparaisons courantes, les locutions et plus de 1000 proverbes*. Paris: Orphie.
- Berry, Keith and Christine Berry (1999). *A Description of Abun*. Canberra: Pacific Linguistics.
- Bertrand-Bocandé, Emmanuel (1849). 'Notes sur la Guinée portugaise ou Sénégal méridionale' [pt. 2], *Bulletin de la Société de Géographie* 12: 57–93.

- Bickel, Balthasar, Goma Banjade, Martin Gaenszle, Elena Lieven, Netra Prasad Paudyal, Ichchha Purna Rai, Manoj Rai, Novel Kishore Rai, and Sabine Stoll (2007). 'Free prefix ordering in Chintang', *Language*, 83(1): 43–73. doi:10.1353/lan.2007.0002
- Bickel, Balthasar and Johanna Nichols (2002). 'Autotypologizing databases and their use in fieldwork', in Peter Austin, Helen Dry, and Peter Wittenburg (eds), *International LREC Workshop on Resources and Tools in Field Linguistics, Las Palmas, 26–7 May 2002*. Nijmegen: Max Planck Institute for Psycholinguistics.
- Bickel, Balthasar and Johanna Nichols (2005). 'Inflectional synthesis of the verb', in Martin Haspelmath, Matthew Dryer, David Gil, and Bernard Comrie (eds), *The World Atlas of Language Structures*. Oxford: Oxford University Press, 94–7.
- Bickel, Balthasar and Johanna Nichols (2007). 'Inflectional morphology', in Timothy Shopen (ed.), *Language Typology and Syntactic Description*, vol. 3: *Grammatical Categories and the Lexicon*. Cambridge: Cambridge University Press, 169–240.
- Bickel, Balthasar and Johanna Nichols (2013). 'Inflectional synthesis of the verb', in Matthew Dryer and Martin Haspelmath (eds), *World Atlas of Language Structures Online*. URL: <http://wals.info/chapter/22>
- Bickel, Balthasar, Johanna Nichols, Taras Zakharko, Alena Witzlack-Makarevich, Kristine Hildebrandt, Michael Rießler, Lennart Bierkandt, Fernando Zúñiga, and John B. Lowe (2017). The Autotyp typological databases. Version 0.1.0. URL: <https://github.com/autotyp/autotyp-data/tree/0.1.0>
- Bickel, Balthasar and Fernando Zúñiga (2017). 'The "word" in polysynthetic languages: Phonological and syntactic challenges', in Michael Fortescue, Marianne Mithun, and Nicholas Evans (eds), *The Oxford Handbook of Polysynthesis*. Oxford: Oxford University Press, 158–85.
- Bickerton, Derek (1981). *Roots of Language*. Ann Arbor, MI: Karoma.
- Bickerton, Derek (1984). 'The language bioprogram hypothesis', *Behavioral and Brain Sciences* 7(2): 173–88. doi:10.1017/S0140525X00044149
- Bickerton, Derek (1988). 'Creole languages and the bioprogram', in Frederick Newmeyer (ed.), *Linguistics: The Cambridge Survey*, vol. 2: *Linguistic Theory. Extensions and Implications*. Cambridge: Cambridge University Press, 268–84.
- Birchall, Joshua (2014). *Argument Marking Patterns in South American Languages*. Universiteit Nijmegen PhD dissertation.
- Blasi, E. Damián, Susanne Maria Michaelis, and Martin Haspelmath (2017). 'Grammars are robustly transmitted even during the emergence of creole languages', *Nature Human Behaviour* 1: 723–9. doi:10.1038/s41562-017-0192-4
- Blench, Roger (2009). 'Do the Ghana-Togo mountain languages constitute a genetic group?', *The Journal of West African Languages* 36(1–2): 19–36.
- Blevins, James P. (2006). 'Word-based morphology', *Journal of Linguistics* 42(3): 531–73. doi:10.1017/S0022226706004191
- Blevins, James P. (2013). 'Word-based morphology from Aristotle to modern WP (Word and Paradigm models)', in Keith Allen (ed.), *The Oxford Handbook of the History of Linguistics*. Oxford: Oxford University Press, 375–95.
- Blevins, James P. (2016a). 'The minimal sign', in Gregory Stump and Andrew Hippisley (eds), *The Cambridge Handbook of Morphology*. Cambridge: Cambridge University Press, 50–69.
- Blevins, James P. (2016b). *Word and Paradigm Morphology*. Oxford: Oxford University Press.

- Blevins, James P., Petar Milin, and Michael Ramscar (2017). 'The Zipfian paradigm cell filling problem', in Ferenc Kiefer, James P. Blevins, and Huba Bartos (eds), *Perspectives on Morphological Structure: Data and Analyses*. Leiden: Brill, 141–58.
- Bloomfield, Leonard (1914). 'Sentence and word', *Transactions and Proceedings of the American Philological Association* 45: 65–75.
- Bloomfield, Leonard (1933). *Language*. New York: Holt.
- Blythe, Joe (2009). *Doing Referring in Murriny Patha Conversation*. University of Sydney PhD dissertation.
- Blythe, Joe, Rachel Nordlinger, and Nicholas Reid (2007). 'Murriny Patha finite verb paradigms'. Unpublished ms.
- Boilat, David (1858). *Grammaire de la langue woloffe*. Paris: Imprimerie Impériale. URL: <http://babel.hathitrust.org/cgi/pt?id=wu.89012299343;view=1up;seq=11>
- Bokamba, Eyamba (1977). 'The impact of multilingualism on language structures: The case of Central Africa', *Anthropological Linguistics* 19: 181–202.
- Bolaños, Katherine (2016). *A Grammar of Kakua*. Utrecht: LOT.
- Bonami, Olivier (2013). 'Towards a robust assessment of implicative relations in inflectional systems'. Paper given at the 'Workshop on Computational Approaches to Morphological Complexity', Paris.
- Bonami, Olivier (2015). 'Periphrasis as collocation', *Morphology* 25: 63–110. doi:10.1007/s11525-015-9254-3
- Bonami, Olivier and Sarah Beniamine (2015). 'Implicative structure and joint predictiveness', in Vito Pirrelli, Claudia Marzi, and Marcello Ferro (eds), *Word Structure and Word Usage: Proceedings of the NetWordS Final Conference, Pisa, Italy, March 30–April 1, 2015*. Pisa: Institute for Computational Linguistics, National Research Council, 4–9.
- Bonami, Olivier and Sarah Beniamine (2016). 'Joint predictiveness in inflectional paradigms', *Word Structure* 9(2): 156–82. doi:10.3366/word.2016.0092
- Bonami, Olivier and Gilles Boyé (2002). 'Suppletion and dependency in inflectional morphology', in Frank van Eynde, Lars Hellan, and Dorothee Beermann (eds), *Proceedings of the 8th International Conference on Head-Driven Phrase Structure Grammar*. Stanford: CSLI, 51–70.
- Bonami, Olivier and Gilles Boyé (2003). 'Supplétion et classes flexionnelles dans la conjugaison du français', *Langages* 15: 102–26.
- Bonami, Olivier and Gilles Boyé (2007). 'French pronominal clitics and the design of Paradigm Function Morphology', in Geert E. Booij, Luca Ducceschi, Bernard Fradin, Emiliano Guevara, Angela Ralli, and Sergio Scalise (eds), *On-line Proceedings of the Fifth Mediterranean Morphology Meeting (MMM5) Fréjus, 15–18 September 2005*. Bologna: University of Bologna, 291–322.
- Bonami, Olivier, Gilles Boyé, and Fabiola Henri (2011). 'Measuring inflectional complexity: French and Mauritian'. Paper given at the 'Workshop on Quantitative Measures in Morphology and Morphological Development', San Diego.
- Bonami, Olivier, Gilles Boyé, and Françoise Kerleroux (2009). 'L'allomorphie radicale et la relation flexion-construction', in Bernard Fradin, Françoise Kerleroux, and Marc Plénat (eds), *Aperçus de morphologie du français*. Saint-Denis: Presses Universitaires de Vincennes, 103–25.
- Bonami, Olivier and Fabiola Henri (2010). 'Assessing empirically the complexity of Mauritian Creole'. Paper given at the conference 'Formal Approaches to Creole Studies 2', Berlin.

- Bonami, Olivier, Fabiola Henri, and Ana R. Luís (2013). 'Comparing sources of inflectional morphology in Romance-based creoles'. Paper given at the workshop 'Portuguese-based Creoles in Perspective', Coimbra.
- Bonami, Olivier, Fabiola Henri, and Ana R. Luís (2015). 'Making sense of morphological complexity'. Paper given at the 'SeePiCLa Meeting', Lisbon.
- Bond, Oliver, Greville G. Corbett, Marina Chumakina, and Dunstan Brown (eds) (2016). *Archi: Complexities of Agreement in Cross-theoretical Perspective*. Oxford: Oxford University Press.
- Booij, Geert E. (1993). 'Against split morphology', in Geert E. Booij and Jaap van Marle (eds), *Yearbook of Morphology 1993*. Dordrecht: Kluwer, 27–49. doi:10.1007/978-94-017-3712-8\_2
- Booij, Geert E. (1997). 'Allomorphy and the autonomy of morphology', *Folia Linguistica* 31: 25–56. doi:10.1515/flin.1997.31.1-2.25
- Booij, Geert E. (2010). *Construction Morphology*. Oxford: Oxford University Press.
- Boyé, Gilles and Patricia Cabredo Hofherr (2006). 'The structure of allomorphy in Spanish verbal inflection', *Cuadernos de Lingüística del Instituto Universitario Ortega y Gasset* 13: 9–24.
- Bozic, Mirjana and William Marslen-Wilson (2010). 'Neurocognitive contexts for morphological complexity: Dissociating inflection and derivation', *Language and Linguistics Compass* 4(11): 1063–73. doi:10.1111/j.1749-818X.2010.00254.x
- Brandão, Ana Paula B. (2014). *A Reference Grammar of Paresi-Haliti (Arawak)*. University of Texas at Austin PhD dissertation.
- Bresnan, Joan (2007). 'Is syntactic knowledge probabilistic? Experiments with the English dative alternation', in Sam Featherston and Wolfgang Sternefeld (eds), *Roots: Linguistics in Search of Its Evidential Base*. Berlin: Mouton de Gruyter, 77–96.
- Bresnan, Joan and Marilyn Ford (2013). 'Predicting syntax: Processing dative constructions in American and Australian varieties of English', *Language* 86(1): 186–213. doi:10.1353/lan.0.0189
- Brown, Dunstan, Greville G. Corbett, Norman M. Fraser, Andrew Hippisley, and Alan Timberlake (1996). 'Russian noun stress and Network Morphology', *Linguistics* 34(1): 53–107. doi:10.1515/ling.1996.34.1.53
- Brown, Dunstan and Andrew Hippisley (2012). *Network Morphology: A Defaults-Based Theory of Word Structure*. Cambridge: Cambridge University Press.
- Burzio, Luigi (2004). 'Paradigmatic and syntagmatic relations in Italian verbal inflection', in Julie Auger, J. Clancy Clements, and Barbara Vance (eds), *Contemporary Approaches to Romance Linguistics*. Amsterdam: John Benjamins, 17–44.
- Bybee, Joan L. (1985). *Morphology: A Study of the Relation between Meaning and Form*. Amsterdam: John Benjamins.
- Bybee, Joan L. (1995). 'Regular morphology and the lexicon', *Language and Cognitive Processes* 10(5): 425–55. doi:10.1080/01690969508407111
- Bybee, Joan L. (2007). *Frequency of Use and the Organization of Language*. Oxford: Oxford University Press.
- Bybee, Joan L. and Clay Beckner (2015). 'Language use, cognitive processes, and linguistic change', in Claire Bowerman and Bethwyn Evans (eds), *The Routledge Handbook of Historical Linguistics*. London: Routledge, 503–18.
- Bybee, Joan L. and Carol Lynn Moder (1983). 'Morphological classes as natural categories', *Language* 59: 251–70. doi:10.2307/413574
- Bybee, Joan and Dan I. Slobin (1982). 'Rules and schemas in the development and use of the English past tense', *Language* 58(2): 265–89. doi:10.2307/414099

- Cadely, Jean-Robert (1994). *Aspects de la phonologie du créole haïtien*. Université du Québec à Montréal PhD dissertation.
- Camara, Sana (2006). *Wolof Lexicon and Grammar*. Madison, WI: NALRC Press.
- Cameron-Faulkner, Thea and Andrew Carstairs-McCarthy (2000). 'Stem alternants as morphological signata: Evidence from blur avoidance in Polish nouns', *Natural Language and Linguistic Theory* 18(4): 813–35. doi:10.1023/A:1006496821412
- Campbell, Lyle (2012). 'Typological characteristics of South American indigenous languages', in Lyle Campbell and Verónica Grondona (eds), *The Indigenous Languages of South America: A Comprehensive Guide*. Berlin: Mouton de Gruyter, 259–330.
- Carlin, Eithne (2006). 'Feeling the need: The borrowing of Cariban functional categories into Mawayana (Arawak)', in Alexandra Y. Aikhenvald and Robert M. W. Dixon (eds), *Grammars in Contact: A Cross-Linguistic Perspective*. Oxford: Oxford University Press, 313–32.
- Carstairs, Andrew (1983). 'Paradigm economy', *Journal of Linguistics* 19(1): 115–28. doi:10.1017/S0022226700007477
- Carstairs, Andrew (1987). *Allomorphy in Inflection*. London: Croom Helm.
- Carstairs-McCarthy, Andrew (1994). 'Inflection classes, gender, and the Principle of Contrast', *Language* 70(4): 737–88.
- Carstairs-McCarthy, Andrew (1998). 'How lexical semantics constrains inflectional allomorphy', in Geert E. Booij and Jaap van Marle (eds), *Yearbook of Morphology 1997*. Dordrecht: Springer, 1–24. doi:10.1007/978-94-011-4998-3\_1
- Carstairs-McCarthy, Andrew (2010). *The Evolution of Morphology*. Oxford: Oxford University Press.
- Chao, Yuen Ren (1968). *A Grammar of Spoken Chinese*. Berkeley, CA: University of California Press.
- Chaudenson, Robert (2003). *La créolisation. Théorie, applications, implications*. Paris: L'Harmattan.
- Childs, G. Tucker (1983). 'Noun class affix renewal in Southern West Atlantic', in Jonathan D. Kaye, Hilda Koopman, Dominique Sportiche, and André Dugas (eds), *Current Approaches to African Linguistics II*. Dordrecht: Mouton de Gruyter and Foris Publications, 17–29.
- Childs, G. Tucker (2009). 'What happens when a language dies? Language change vs. language death', *Studies in African Linguistics* 38(2): 113–30.
- Chirikba, Viacheslav A. (2008). 'The problem of the Caucasian Sprachbund', in Pieter C. Muysken (ed.), *From Linguistic Areas to Areal Linguistics*. Amsterdam: John Benjamins, 25–94.
- Ciucci, Luca (2014). 'Tracce di contatto tra la famiglia zamuco (ayoreo, chamacoco) e altre lingue del Chaco. Prime prospezioni', *Quaderni del Laboratorio di Linguistica* 13: 1–52.
- Clahsen, Harald, Claudia Felser, Kathleen Neubauer, Mikako Sato, and Renita Silva (2010). 'Morphological structure in native and nonnative language processing', *Language Learning* 60: 21–43. doi:10.1111/j.1467-9922.2009.00550.x
- Cobbinah, Alexander (2010). 'The Casamance as an area of intense language contact: The case of Bainounk Gubaher', in Friederike Lüpke and Mary Raymond (eds), *Documenting Atlantic-Mande convergence and diversity*. Special issue of the *Journal of Language Contact*—THEMA 3: 175–202.
- Cole, Desmond T. (1967). *Some Features of Ganda Linguistic Structure*. Johannesburg: Witwatersrand University Press.
- Comrie, Bernard (1989). *Language Universals and Linguistic Typology*. 2nd ed. Chicago: University of Chicago Press.

- Comrie, Bernard (1992). 'Before complexity', in John A. Hawkins and Murray Gell-Mann (eds), *The Evolution of Human Languages*. London: Addison-Wesley, 193–211.
- Comrie, Bernard, Lucía A. Golluscio, Hebe Gonzáles, and Alejandra Vidal (2010). 'El Chaco como área lingüística', in Z. Estrada Fernández and R. Arzápalo Marín (eds), *Estudios de lenguas amerindias*, vol. 2: *Contribuciones al estudio de las lenguas originarias de América*. Hermosillo, Sonora (Mexico): Editorial Unison, 85–130.
- Corbett, Greville G. (1982). 'Gender in Russian: An account of gender specification and its relationship to declension', *Russian Linguistics* 6(2): 197–232.
- Corbett, Greville G. (1991). *Gender*. Cambridge: Cambridge University Press.
- Corbett, Greville G. (2000). *Number*. Cambridge: Cambridge University Press.
- Corbett, Greville G. (2007). 'Canonical typology, suppletion, and possible words', *Language* 83(1): 8–42. doi:10.1353/lan.2007.0006
- Corbett, Greville G. (2009). 'Suppletion: Typology, markedness, complexity', in Patrick O. Steinkrüger and Manfred Krifka (eds), *On Inflection*. Berlin: Mouton de Gruyter, 25–40.
- Corbett, Greville G. (2013a). 'Canonical morphosyntactic features', in Dunstan Brown, Marina Chumakina, and Greville Corbett (eds), *Canonical Morphology and Syntax*. Oxford: Oxford University Press, 48–65.
- Corbett, Greville G. (2013b). 'The unique challenge of the Archi paradigm', in Chundra Cathcart, Shinae Kang, and Clare S. Sandy (eds), *Proceedings of the 37th Annual Meeting, Berkeley Linguistics Society: Special Session on Languages of the Caucasus*, 52–67.
- Corbett, Greville G. (2015). 'Morphosyntactic complexity: A typology of lexical splits', *Language* 91(1): 145–93. doi:10.1353/lan.2015.0003
- Corbett, Greville G. and Sebastian Fedden (2016). 'Canonical gender', *Journal of Linguistics* 52: 495–531. doi:10.1017/S0022226715000195
- Corbett, Greville G. and Norman M. Fraser (1993). 'Network Morphology: A DATR account of Russian nominal inflection', *Journal of Linguistics* 29(1): 113–42. doi:10.1017/S0022226700000074
- Corbett, Greville G., Andrew Hippisley, Dunstan Brown, and Paul Marriott (2001). 'Frequency, regularity and the paradigm: A perspective from Russian on a complex relation', in Joan Bybee and Paul J. Hopper (eds), *Frequency and the Emergence of Linguistic Structure*. Amsterdam: John Benjamins, 201–26.
- Corne, Chris (1982). 'A contrastive analysis of Reunion and Isle de France Creole French: Two typologically diverse languages', in Philip Baker and Chris Corne (eds), *Isle de France Creole: Affinities and Origins*. Ann Arbor, MI: Karoma, 8–129.
- Corne, Chris (1999). *From French to Creole*. London: University of Westminster Press.
- Cotterell, Ryan, Christo Kirov, Mans Hulden, and Jason Eisner (2019). 'On the complexity and typology of inflectional morphological systems', *Transactions of the Association for Computational Linguistics* 7: 327–42. doi: 10.1162/tacl\_a\_00271
- Crevels, Mily and Hein van der Voort (2008). 'The Guaporé-Mamoré Region as a Linguistic Area', in Pieter C. Muysken (ed.), *From Linguistic Areas to Areal Linguistics*. Amsterdam: John Benjamins, 151–79.
- Croft, William (1991). *Syntactic Categories and Grammatical Relations: The Cognitive Organization of Information*. Chicago: University of Chicago Press.
- Croft, William (2001). *Radical Construction Grammar: Syntactic Theory in Typological Perspective*. Oxford: Oxford University Press.
- Cruschina, Silvio, Martin Maiden, and John C. Smith (eds) (2013). *The Boundaries of Pure Morphology: Diachronic and Synchronic Perspectives*. Oxford: Oxford University Press.

- Cuskley, Christine, Francesca Colaiori, Claudio Castellano, Vittorio Loreto, Martina Pugliese, and Francesca Tria (2015). 'The adoption of linguistic rules in native and non-native speakers: Evidence from a Wug task', *Journal of Memory and Language* 84: 205–23. doi:10.1016/j.jml.2015.06.005
- Dahl, Östen (2004). *The Growth and Maintenance of Linguistic Complexity*. Amsterdam: John Benjamins.
- Dahl, Östen (2009). 'Increases in complexity as a result of language contact', in Kurt Braunmüller and Juliane House (eds), *Convergence and Divergence in Language Contact Situations*. Amsterdam: John Benjamins, 41–52.
- Dahl, Östen (2017). 'Polysynthesis and complexity', in Michael Fortescue, Marianne Mithun, and Nicholas Evans (eds), *The Oxford Handbook of Polysynthesis*. Oxford: Oxford University Press, 19–29.
- Dahl, Östen (2018). 'Grammaticalization in the languages of Europe', in Bernd Heine and Heiko Narrog (eds), *Grammaticalization from a Typological Perspective*. New York: Oxford University Press, 79–96.
- Dale, Rick and Gary Lupyan (2012). 'Understanding the origins of morphological diversity: The Linguistic Niche Hypothesis', *Advances in Complex Systems* 15(3–4): 1150017. doi:10.1142/S0219525911500172
- Danielsen, Swintha (2007). *Baure: An Arawak Language of Bolivia*. Leiden: CNWS Publications.
- Dard, Jean (1825). *Dictionnaire français-wolof et français-bambara, suivi du dictionnaire wolof-français*. Paris: Imprimerie Royale.
- Dard, Jean (1826). *Grammaire wolofe ou méthode pour étudier la langue des noirs qui habitent les royaumes de Bourba-Yolof, de Walo, de Damel, de Bour-Sine, de Saloume, de Baole, en Sénégambie*. Paris: Imprimerie Royale.
- Daugherty, Kim G. and Mark S. Seidenberg (1994). 'Beyond rules and exceptions: A connectionist approach to inflectional morphology', in Susan D. Lima, Roberta L. Corrigan, and Gregory Iverson (eds), *The Reality of Linguistic Rules*. Amsterdam: John Benjamins, 353–88.
- de Boeck, Egide (1904). *Grammaire et vocabulaire du Lingala, ou Langue du Haut-Congo*. Brussels: Polleunis-Ceuterick.
- DeGraff, Michel (2001). 'On the origin of creoles: A Cartesian critique of Neo-Darwinian linguistics', *Linguistic Typology* 5(2–3): 213–310. doi:10.1515/lity.2001.002
- DeGraff, Michel (2003). 'Against creole exceptionalism', *Language* 79(4): 391–410.
- DeGraff, Michel (2005). 'Linguists' most dangerous myth: The fallacy of creole exceptionalism', *Language in Society* 34: 533–91. doi:10.1017/S0047404505050207
- DeGraff, Michel (2007). 'Haitian creole'. In John Holm and Peter L. Patrick (eds), *Comparative Creole Syntax: Parallel Outlines of Eighteen Creole Grammars*, vol. 7 of Westminster Creolistic Series. London: Battlebridge Publications, 101–26.
- de Groot, Casper (2008). 'Morphological complexity as a parameter of linguistic typology: Hungarian as a contact language', in Matti Miestamo, Kaius Sinnemäki, and Fred Karlsson (eds), *Language Complexity: Typology, Contact, Change*. Amsterdam: John Benjamins, 191–214.
- de Haan, Ferdinand (2013). 'Semantic distinctions of evidentiality', in Matthew S. Dryer and Martin Haspelmath (eds), *The World Atlas of Language Structures Online*. Leipzig: Max Planck Institute for Evolutionary Anthropology. URL: <http://wals.info/chapter/77>
- de Jong, Nivja Helena (2002). *Morphological Families in the Mental Lexicon*. Universiteit Nijmegen PhD dissertation.
- DeKeyser, Robert M. (2005). 'What makes learning second-language grammar difficult? A review of issues', *Language Learning* 55: 1–25. doi:10.1111/j.0023-8333.2005.00294.x
- de Leeuw, Joshua R. (2014). 'jsPsych: A JavaScript library for creating behavioral experiments in a Web browser', *Behavior Research Methods* 47(1): 1–12. doi:10.3758/s13428-014-0458-y

- Delafosse, Maurice (1927). 'Les classes nominales en wolof', in *Festschrift Meinhof. Sprachwissenschaftliche und andere Studien*. Glückstadt: L. Friedrichsen, 29–44. [Reprinted in Gabriel Manessy and Serge Sauvageot (eds) (1963). *Wolof et Sérér. Études de phonétique et de grammaire descriptive*. Dakar: University of Dakar Press, 25–42.]
- DeLancey, Scott (2011). 'On the origin of Sinitic', in Zhuo Jing-Schmidt (ed.), *Proceedings of the 23rd North American Conference on Chinese Linguistics*. Eugene: University of Oregon, 51–64.
- Derbyshire, Desmond (1987). 'Morphosyntactic areal characteristics of Amazonian languages', *International Journal of American Linguistics* 53: 311–26. doi:10.1086/466060
- Derbyshire, Desmond and Doris Payne (1990). 'Noun classification systems of Amazonian languages', in Doris Payne (ed.), *Amazonian Linguistics: Studies in Lowland South American Languages*. Austin, TX: University of Texas Press, 243–71.
- Derwing, Bruce L. (1990). 'Morphology and the mental lexicon: Psycholinguistic evidence', in Wolfgang U. Dressler, Hans C. Luschützky, Oskar E. Pfeiffer, and John R. Rennison (eds), *Contemporary Morphology*. Berlin: Mouton de Gruyter, 249–65.
- Deutscher, Guy (2009). "'Overall complexity": A wild goose chase?', in Geoffrey Sampson, David Gil, and Peter S. Trudgill (eds), *Language Complexity as an Evolving Variable*. Oxford: Oxford University Press, 243–51.
- Diagne, Anna M., Sascha Kessler, and Christian Meyer (eds) (2011). *Communication wolof et société sénégalaise. Héritage et création*. Paris: L'Harmattan.
- Diallo, Abdourahmane (2010). 'Morphological consequences of Mande borrowings in Fula: The case of Pular, Fuuta–Jaloo', in Friederike Lüpke and Mary Raymond (eds), *Documenting Atlantic–Mande Convergence and Diversity*. Special issue of the *Journal of Language Contact*—THEMA 3: 71–85.
- Diallo, Abdourahmane (2014). *Language Contact in Guinea: The Case of Pular and Mande Varieties*. Köln: Köppe.
- Di Garbo, Francesca (2014). *Gender and Its Interaction with Number and Evaluative Morphology: An Intra- and Intergenealogical Typological Survey of Africa*. Stockholm University PhD dissertation.
- Di Garbo, Francesca (2016). 'Exploring grammatical complexity crosslinguistically: The case of gender', *Linguistic Discovery* 14: 46–85. doi:10.1349/PS1.1537-0852.A.468
- Di Garbo, Francesca and Matti Miestamo (2019). 'The evolving complexity of gender agreement systems', in Francesca Di Garbo, Bruno Olsson, and Bernhard Wälchli (eds), *Grammatical Gender and Linguistic Complexity*, vol. II: *World-Wide Comparative Studies*. Berlin: Language Science Press, 15–60. doi:10.5281/zenodo.3462778
- Dimmendaal, Gerrit J. (2011). *Historical Linguistics and the Comparative Study of African Languages*. Amsterdam: John Benjamins.
- Diouf, Jean Léopold (2009). *Grammaire du wolof contemporain. Edition revue et complétée*. Paris: L'Harmattan.
- Dixon, Robert M. W. (2002). *Australian Languages: Their Nature and Development*. Cambridge: Cambridge University Press.
- Dixon, Robert M. W. (2004). *The Jarawara Language of Southern Amazonia*. Oxford: Oxford University Press.
- Dixon, Robert M. W. and Alexandra Y. Aikhenvald (1999). 'Introduction', in Robert M. W. Dixon and Alexandra Y. Aikhenvald (eds), *The Amazonian Languages*. Cambridge: Cambridge University Press, 1–22.



- Doneux, Jean Léonce (1975). 'Hypothèses pour la comparative des langues atlantiques', *Africana Linguistica* 6: 41–129.
- Doneux, Jean Léonce (1978). 'Les liens historiques entre les langues du Sénégal', *Réalités africaines et langue française* 7: 6–55.
- Donohue, Mark (2009). 'Flores languages', in Keith Brown and Sarah Ogilvie (eds), *Concise Encyclopedia of Languages of the World*. Oxford: Elsevier, 420–1.
- Donohue, Mark and Tim Denham (to appear). 'Becoming Austronesian: Mechanisms of language dispersal across southern island Southeast Asia', in David Gil and Antoinette Schapper (eds), *Austronesian Undressed*.
- Donohue, Mark and Johanna Nichols (2011). 'Does phoneme inventory size correlate with population size?', *Linguistic Typology* 15(2): 161–70. doi:10.1515/lity.2011.011
- Dorian, Nancy (1978). 'The fate of morphological complexity in language death: Evidence from East Sutherland Gaelic', *Language* 54(3): 590–609.
- Dressler, Wolfgang U. (2003). 'Degrees of grammatical productivity in inflectional morphology', *Italian Journal of Linguistics* 15(1): 31–62.
- Dressler, Wolfgang U. (2005). 'Morphological typology and first language acquisition: Some mutual challenges', in Geert E. Booij, Emiliano Guevara, Angela Ralli, Salvatore Sgroi, and Sergio Scalise (eds), *Morphology and Linguistic Typology: On-line Proceedings of the Fourth Mediterranean Morphology Meeting (MMM4), Catania, 21–23 September 2003*, 7–20.
- Dressler, Wolfgang U. (2011). 'The rise of complexity in inflectional morphology', *Poznań Studies in Contemporary Linguistics* 47(2): 159–76. doi:10.2478/psicl-2011-0013
- Dressler, Wolfgang U. (2019). 'Natural morphology', in Mark Aronoff (ed.), *The Oxford Research Encyclopedia of Linguistics*. New York: Oxford University Press. doi: 10.1093/acrefore/9780199384655.013.576
- Dressler, Wolfgang U. and Marianne Kilani-Schoch (2016). 'Natural morphology', in Andrew Hippisley and Gregory Stump (eds), *The Cambridge Handbook of Morphology*. Cambridge: Cambridge University Press, 356–89.
- Dressler, Wolfgang U., Alona Kononenko, Sabine Sommer-Lolei, Katharina Korecky-Kröll, Paulina Zygorowicz, and Laura Kamandulytė-Merfeldienė (2019). 'Morphological richness, transparency and the evolution of morphonotactic patterns', *Folia Linguistica* 54(1): 85–106. doi:10.1515/flih-2019-0005
- Dressler, Wolfgang U., Willi Mayerthaler, Oswald Panagl, and Wolfgang U. Wurzel (1987). *Leitmotifs in Natural Morphology*. Amsterdam: John Benjamins.
- Dressler, Wolfgang U., Sabine Sommer-Lolei, Katharina Korecky-Kröll, Reili Argus, Ineta Dabašinskienė, Laura Kamandulytė-Merfeldienė, Johanna J. Ijäs, Victoria V. Kazakovskaya, Klaus Laalo, and Evangelia Thomadaki (2019). 'First-language acquisition of synthetic compounds in Estonian, Finnish, German, Greek, Lithuanian, Russian and Saami', *Morphology* 29(3): 409–29. doi:10.1007/s11525-019-09339-0
- Dryer, Matthew S. (2013). 'Coding of nominal plurality', in Matthew S. Dryer and Martin Haspelmath (eds), *The World Atlas of Language Structures Online*. Leipzig: Max Planck Institute for Evolutionary Anthropology. URL: <https://wals.info/chapter/33>
- Dryer, Matthew and Martin Haspelmath (eds) (2013). *The World Atlas of Language Structures Online*. Leipzig: Max Planck Institute for Evolutionary Anthropology. URL: <http://wals.info>
- Duke, Janet (2010). 'Gender reduction and loss in Germanic: The Scandinavian, Dutch, and Afrikaans case studies', in Antje Dammel, Sebastian Kürschner, and Damaris Nübling (eds), *Kontrastive germanistische Linguistik*. Hildesheim: Olms, 643–72.

- Ehret, Katharina and Benedikt Szmrecsanyi (2016). 'An information-theoretic approach to assess linguistic complexity', in Raffaella Baechler and Guido Seiler (eds), *Complexity, Isolation, and Variation*. Berlin: de Gruyter Mouton, 71–94.
- Ehrhart, Sabine (1993). *Le créole français de St-Louis (le tayo) en Nouvelle-Calédonie*. Hamburg: Helmut Buske.
- Epps, Patience (2005). 'Areal diffusion and the development of evidentiality: Evidence from Hup', *Studies in Language* 29(3): 617–50. doi:10.1075/sl.29.3.04epp
- Epps, Patience (2007a). 'The Vaupés melting pot: Tukanian influence on Hup', in Alexandra Y. Aikhenvald and Robert M. W. Dixon (eds), *Grammars in Contact: A Cross-Linguistic Typology*. Oxford: Oxford University Press, 267–89.
- Epps, Patience (2007b). 'Birth of a noun classification system: The case of Hup', in Leo Wetzels (ed.), *Language Endangerment and Endangered Languages: Linguistic and Anthropological Studies with Special Emphasis on the Languages and Cultures of the Andean-Amazonian Border Area*. The Netherlands: Leiden University, 107–28.
- Epps, Patience (2008). *A Grammar of Hup*. Berlin: Mouton de Gruyter.
- Epps, Patience (2010). 'Linking valence change and modality: Diachronic evidence from Hup', *International Journal of American Linguistics* 76(3): 335–56. doi:10.1086/652792
- Epps, Patience (2013). 'Inheritance, calquing, or independent innovation? Reconstructing morphological complexity in Amazonian numerals', *Journal of Language Contact* 6: 329–57. doi:10.1163/19552629-00602007
- Epps, Patience (2020). 'Amazonian linguistic diversity and its sociocultural correlates', in Mily Crevels, and Pieter C. Muysken (eds), *Language Dispersal, Diversification, and Contact: A Global Perspective*. Oxford: Oxford University Press, 275–90.
- Epps, Patience and Lev Michael (2017). 'The areal linguistics of Amazonia', in Raymond Hickey (ed.), *The Cambridge Handbook of Areal Linguistics*. Cambridge: Cambridge University Press, 934–63.
- Evans, Nicholas (2003). *Bininj Gun-Wok: A Pan-Dialectal Grammar of Mayali, Kunwinjku and Kune*. Canberra: Pacific Linguistics.
- Facundes, Sidney da Silva (2000). *The Language of the Apurinã People of Brazil*. The State University of New York at Buffalo PhD dissertation.
- Fal, Arame, Rosine Santos, and Jean Léonce Doneux (1990). *Dictionnaire wolof-français*. Paris: Karthala.
- Falkenberg, Johannes (1962). *Kin and Totem: Group Relations of Aborigines in the Port Keats District*. Oslo: Oslo University Press.
- Faye, Souleymane (2013). *Grammaire dialectale du seereer*. Dakar: La maison du livre universel E.L.U.
- Fedden, Sebastian and Greville G. Corbett (2017). 'Gender and classifiers as concurrent systems: Refining the typology of nominal classification', *Glossa* 2(1), 34. doi: 10.5334/gjgl.177
- Feist, Timothy (2015). *A Grammar of Skolt Saami*. Helsinki: Suomalais-Ugrilainen Seura.
- Feldman, Laurie B. (2000). 'Are morphological effects distinguishable from the effects of shared meaning and shared form?', *Journal of Experimental Psychology. Learning, Memory, and Cognition* 26(6): 1431–44. doi:10.1037//0278-7393.26.6.1431
- Fenk-Oczlon, Gertraud and August Fenk (2008). 'Complexity trade-offs between the subsystems of language', in Matti Miestamo, Kaius Sinnemäki, and Fred Karlsson (eds), *Language Complexity: Typology, Contact, Change*. Amsterdam: John Benjamins, 43–65.

- Fenk-Oczlon, Gertraud and August Fenk (2014). 'Complexity trade-offs do not prove the equal complexity hypothesis', *Poznań Studies in Contemporary Linguistics* 50(2): 145–55. doi:10.1515/psicl-2014-0010
- Ferguson, Charles A. (1971). 'Absence of copula and the notion of simplicity: A study of normal speech, baby talk, foreigner talk, and pidgins', in Dell Hymes (ed.), *Pidginization and Creolization of Languages*. Cambridge: Cambridge University Press, 141–50.
- Ferronha, António Luís (ed.) (1994). *Tratado breve dos Rios de Guiné do Cabo-Verde. Feito pelo Capitão André Álvares d'Almada. Ano de 1594*. Lisboa: Grupo de Trabalho do Ministério da Educação para as Comemorações dos Descobrimentos Portugueses.
- Ferry, Marie-Paule and Konstantin Pozdniakov (2001). 'Dialectique du régulier et de l'irrégulier. Le système des classes nominales dans le groupe tenda des langues atlantiques', in Robert Nicolai (ed.), *Leçons d'Afrique. Filiations, ruptures et reconstitution de langues. Un hommage à Gabriel Manessy*. Louvain: Peeters, 153–67.
- Fertig, David (2000). *Morphological Change Up Close: Two and a Half Centuries of Verbal Inflection in Nuremberg*. Berlin: De Gruyter.
- Field, Andy, Jeremy Miles, and Zoë Field (2012). *Discovering Statistics Using R*. London: Sage.
- Finkel, Raphael and Gregory Stump (2007). 'Principal parts and morphological typology', *Morphology* 17(1): 39–75. doi:10.1007/s11525-007-9115-9
- Finkel, Raphael and Gregory Stump (2009). 'Principal parts and degrees of paradigmatic transparency', in James P. Blevins and Juliette Blevins (eds), *Analogy in Grammar: Form and Acquisition*. Oxford: Oxford University Press, 13–53.
- Finkel, Raphael and Gregory Stump (2013). Principal parts analyzer. URL: <http://www.cs.uky.edu/~raphael/linguistics/analyze.html> (accessed July 2016).
- Fiorentino, Robert and David Poeppel (2007). 'Compound words and structure in the lexicon', *Language and Cognitive Processes* 22(7): 953–1000. doi:10.1080/01690960701190215
- Fitch, W. Tecumseh and Marc D. Hauser (2004). 'Computational constraints on syntactic processing in a nonhuman primate', *Science* 303(5656): 377–80. doi:10.1126/science.1089401
- Fleck, David (2007). 'Evidentiality and double tense in Matsigenka', *Language* 83: 589–614. doi:10.1353/lan.2007.0113
- Forshaw, William (2016). *Little Kids, Big Verbs: The Acquisition of Murrinhpatha Bipartite Stem Verbs*. University of Melbourne PhD dissertation.
- Fortescue, Michael (1992). 'Morphophonemic complexity and typological stability in a polysynthetic language family', *International Journal of American Linguistics* 58(2): 242–8. doi:10.1086/ijal.58.2.3519761
- Fowler, Catherine S. (1972). 'Some ecological clues to Proto-Numic homelands', in Don D. Fowler (ed.), *Great Basin Cultural Ecology: A Symposium*. Reno: Desert Research Institute Publications in the Social Sciences, 105–21.
- Frenda, Alessio (2011). 'Gender in Irish between continuity and change', *Folia Linguistica* 45: 283–316. doi:10.1515/flin.2011.012
- Gabas Jr, Nilson (1999). *A Grammar of Karo, Tupi (Brazil)*. University of California at Santa Barbara PhD dissertation.
- Gal, Susan (1989). 'Lexical innovation and loss: Restricted Hungarian', in Nancy Dorian (ed.), *Investigating Obsolescence: Studies in Language Contraction and Death*. Cambridge: Cambridge University Press, 313–31.
- Gamble, David (1957). *Elementary Wolof Grammar*. London: Research Department Colonial Office. [Reprinted in Gabriel Manessy and Serge Sauvageot (eds) (1963).

- Wolof et Sérér. *Études de phonétique et de grammaire descriptive*. Dakar: University of Dakar Press, 131–61.]
- Gao, Yongming (1998). *Mental Representations of Chinese Numeral Classifiers*. Lehigh University PhD dissertation.
- Gardani, Francesco (2008). *Borrowing of Inflectional Morphemes in Language Contact*. Frankfurt am Main: Peter Lang.
- Gardani, Francesco (2012). 'Plural across inflection and derivation, fusion and agglutination', in Lars Johanson and Martine I. Robbeets (eds), *Copies versus Cognates in Bound Morphology*. Leiden: Brill, 71–97.
- Gardani, Francesco (2013). *Dynamics of Morphological Productivity: The Evolution of Noun Classes from Latin to Italian*. Leiden: Brill.
- Gardani, Francesco (2015). 'Affix pleonasm', in Peter O. Müller, Ingeborg Ohnheiser, Susan Olsen, and Franz Rainer (eds), *Word-Formation. An International Handbook of the Languages of Europe*, vol. 1. Berlin: De Gruyter Mouton, 537–50.
- Gardani, Francesco (2018). 'On morphological borrowing', *Language and Linguistics Compass* 12(10): 1–17. doi:10.1111/lnc3.12302
- Gardani, Francesco, Franz Rainer, and Hans Christian Luschützky (2019). 'Competition in morphology: A historical outline', in Franz Rainer, Francesco Gardani, Wolfgang U. Dressler, and Hans Christian Luschützky (eds), *Competition in Inflection and Word-Formation*. Cham: Springer, 3–36. doi:10.1007/978-3-030-02550-2\_1
- Gblem-Poidi, Massanvi Honorine (2007). 'Nominal classes and concord in Igo (Ahlon)', in Mary Esther Kropp Dakubu, George Akanlig-Pare, Kweku E. Osam, and Kofi K. Saah (eds), *Proceedings of the Annual Colloquium of the Legon-Trondheim Linguistics Project 10–20 January 2005*, vol. 4. Legon: Linguistics Department, University of Ghana, 52–60.
- Gell-Mann, Murray (1994). *The Quark and the Jaguar: Adventures in the Simple and the Complex*. London: Little Brown.
- Gell-Mann, Murray (1995). 'What is complexity?', *Complexity* 1(1): 16–19.
- Gervain, Judith and Jacques Mehler (2010). 'Speech perception and language acquisition in the first year of life', *Annual Review of Psychology* 61: 191–218. doi:10.1146/annurev.psych.093008.100408
- Gibbons, Jean Dickinson (1992). *Nonparametric Measures of Association*. Newbury Park, CA: Sage.
- Gippert, Jost, Wolfgang Schulze, Zaza Aleksidze, and Jean-Pierre Mahé (2009). *The Caucasian Albanian Palimpsests of Mount Sinai*. Turnhout, Belgium: Brepols.
- Givón, Talmy (1971). 'Historical syntax and synchronic morphology: An archeologist's fieldtrip', *Proceedings of the Chicago Linguistic Society* 7: 394–415.
- Goertzel, Ben (1994). *Chaotic Logic: Language, Thought, and Reality from the Perspective of Complex Systems Science*. Boston: Springer.
- Goldsmith, John (2001). 'Unsupervised learning of the morphology of a natural language', *Computational Linguistics* 27(2): 153–98. doi:10.1162/089120101750300490
- Goldsmith, John (2011). 'The evaluation metric in Generative Grammar.' Paper presented at the 50th anniversary celebration for the MIT Department of Linguistics.
- Gomez-Imbert, Elsa (1996). 'When animals become "rounded" and "feminine": Conceptual categories and linguistic classification in a multilingual setting', in John J. Gumperz and Stephen C. Levinson (eds), *Rethinking Linguistic Relativity*. Cambridge: Cambridge University Press, 438–69.
- Gomez-Imbert, Elsa (2007). 'Tukanoan nominal classification: The Tatuyo system', in Leo Wetzels (ed.), *Language Endangerment and Endangered Languages: Linguistic and*

- Anthropological Studies with Special Emphasis on the Languages and Cultures of the Andean-Amazonian Border Area*. Leiden: Leiden University, 401–28.
- Good, Jeff (2012a). 'How to become a "Kwa" noun', *Morphology* 22: 293–335. doi:10.1007/s11525-011-9197-2
- Good, Jeff (2012b). 'Typologizing grammatical complexities: Or why creoles may be paradigmatically simple but syntagmatically average', *Journal of Pidgin and Creole Languages* 27(1): 1–47. doi:10.1075/jpcl.27.1.01goo
- Good, Jeff (2015). 'Paradigmatic complexity in pidgins and creoles', *Word Structure* 8(2): 184–227. doi:10.3366/word.2015.0081
- Good, Jeff (2016). *The Linguistic Typology of Templates*. Cambridge: Cambridge University Press.
- Grant, Anthony P. (1996). 'The evolution of functional categories in Grande Ronde Chinook Jargon: Ethnolinguistic and grammatical considerations', in Philip Baker and Anand Syea (eds), *Changing Meanings, Changing Functions: Papers Relating to Grammaticalization in Creole Languages*. London: University of Westminster Press, 225–42.
- Grant, Anthony (2009). 'Admixture, structural transmission, simplicity and complexity', in Nicholas Faraclas and Thomas Klein (eds), *Simplicity and Complexity in Creoles and Pidgins*. London: Battlebridge Publications, 125–52.
- Green, Ian (2003). 'The genetic status of Murrinh-patha', in Nicholas Evans (ed.), *The Non-Pama-Nyungan Languages of Northern Australia*. Canberra: Pacific Linguistics, 125–58.
- Greenberg, Joseph H. (1954). 'A quantitative approach to the morphological typology of language', in Robert F. Spencer (ed.), *Method and Perspective in Anthropology: Papers in Honor of Wilson D. Wallis*. Minneapolis: Minnesota University Press, 192–220.
- Greenberg, Joseph H. (1960). 'A quantitative approach to the morphological typology of language', *International Journal of American Linguistics* 26(3): 178–94. doi:10.1086/464575
- Grijns, Cornelis D. (1991). *Jakarta Malay: A Multidimensional Approach to Spatial Variation*. Leiden: KITLV Press.
- Grinevald, Colette and Frank Seifart (2004). 'Noun classes in African and Amazonian languages: Towards a comparison', *Linguistic Typology* 8: 243–85. doi:10.1515/lyt.2004.007
- Grünwald, Peter D. (2007). *The Minimum Description Length Principle*. Cambridge, MA: The MIT Press.
- Guérin, Maximilien (2011). *Le syntagme nominal en wolof. Une approche typologique*. Paris: Université Sorbonne Nouvelle—Paris 3 MA thesis.
- Guillaume, Antoine (2008). *A Grammar of Cavineña*. Berlin: Mouton de Gruyter.
- Guillaume, Antoine (2016). 'Associated motion in South America: Typological and areal perspectives', *Linguistic Typology* 20: 81–177. doi:10.1515/lingty-2016-0003
- Guillaume, Antoine and Françoise Rose (2010). 'Sociative causative markers in South American languages: A possible areal feature', in Franck Floricic (ed.), *Essais de typologie et de linguistique générale, Mélanges offerts à Denis Creissels*. Lyon: ENS Éditions, 383–402.
- Guy, Gregory (1991). 'Explanation in variable phonology: An exponential model of morphological constraints', *Language Variation and Change* 3: 1–22. doi:10.1017/S0954394500000429
- Hale, Kenneth (1969). *Walbiri Conjugations*. Cambridge, MA: MIT.

- Halle, Moris (1994). 'The Russian declension: An illustration of the theory of Distributed Morphology', in Jennifer S. Cole and Charles Kisseberth (eds), *Perspectives in Phonology*. Stanford: CSLI Publications, 29–60.
- Hammarström, Harald, Robert Forkel, and Martin Haspelmath (eds) (2019). *Glottolog 3.4*. Jena: Max Planck Institute for the Science of Human History. URL: <https://glottolog.org>
- Hansson, Inga-Lill (2003). 'Akha', in Randy LaPolla and Graham Thurgood (eds). *The Sino-Tibetan Languages*. London: Routledge, 236–51.
- Harris, Alice (2004). 'History in support of synchrony', in Charles Chang, Michael J. Houser, Yuni Kim, David Mortensen, and Mischa Park-Doob (eds), *Proceedings of the Berkeley Linguistics Society*. Berkeley Linguistics Society, 142–59.
- Harris, Alice (2017). *Multiple Exponence*. Oxford: Oxford University Press.
- Harris, Alice and Lyle Campbell (1995). *Historical Syntax in Cross-linguistic Perspective*. Cambridge: University of Cambridge Press.
- Haspelmath, Martin (2009). 'An empirical test of the Agglutination Hypothesis', in Sergio Scalise, Elisabetta Magni, and Antonietta Bisetto (eds), *Universals of Language Today*. Dordrecht: Springer, 13–29.
- Haspelmath, Martin (2011). 'The indeterminacy of word segmentation and the nature of morphology and syntax', *Folia Linguistica* 45(1): 31–80. doi:10.1515/flin-2017-1005
- Haspelmath, Martin, Matthew Dryer, David Gil, and Bernard Comrie (eds) (2005). *The World Atlas of Language Structures*. Oxford: Oxford University Press.
- Haspelmath, Martin and Thomas Müller-Bardey (2004). 'Valency change', in Geert E. Booij, Christian Lehmann, Joachim Mugdan, and Stavros Skopeteas (in collaboration with Wolfgang Kesselheim) (eds), *Morphology: A Handbook on Inflection and Word Formation*, vol. 2. Berlin: de Gruyter, 1130–45.
- Haspelmath, Martin and Andrea D. Sims (2010). *Understanding Morphology*. 2nd ed. London: Hodder Education.
- Haude, Katharina (2006). *A Grammar of Movima*. Universiteit Nijmegen PhD dissertation.
- Hauser, Marc D., Noam Chomsky, and Tecumseh W. Fitch (2002). 'The faculty of language: What is it, who has it, and how did it evolve?', *Science* 298(5598): 1569–79. doi:10.1126/science.298.5598.1569
- Hawkins, John A. (2004). *Efficiency and Complexity in Grammars*. New York: Oxford University Press.
- Hawkins, John A. (2007). 'Processing typology and why psychologists need to know about it', *New Ideas in Psychology* 25: 87–107. doi:10.1016/j.newideapsych.2007.02.003
- Hawkins, John A. (2014). *Cross-Linguistic Variation and Efficiency*. Oxford: Oxford University Press.
- Hay, Jennifer (2001). 'Lexical frequency in morphology: Is everything relative?', *Linguistics* 39(6): 1041–70. doi:10.1515/ling.2001.041
- Hay, Jennifer (2003). *Causes and Consequences of Word Structure*. New York: Routledge.
- Hay, Jennifer and Laurie Bauer (2007). 'Phoneme inventory size and population size', *Language* 83(2): 388–400. doi:10.1353/lan.2007.0071
- Haynie, Hannah, Claire Bower, Patience Epps, Jane Hill, and Patrick McConvell (2014). 'Wanderwörter in languages of the Americas and Australia', *Ampersand* 1: 1–18. doi:10.1016/j.amper.2014.10.001
- Hazaël-Massieux, Marie-Christine (2002). 'Les créoles à base française: une introduction', *Travaux Interdisciplinaires du Laboratoire Parole et Langage d'Aix-en-Provence (TIPA)* 21: 63–86.
- Hengeveld, Kees and Sterre Leufkens (2018). 'Transparent and non-transparent languages', *Folia Linguistica* 52(1): 139–75. doi:10.1515/flin-2018-0003

- Henri, Fabiola (2010). *A Constraint-Based Approach to Verbal Constructions in Mauritian*. University of Mauritius and Université Paris Diderot PhD dissertation.
- Henri, Fabiola (2012). 'Attenuative reduplication in Mauritian'. In Enoch Aboh, Norval Smith, and Anne Zribi-Hertz (eds), *The Morphosyntax of Reiteration*. Amsterdam: John Benjamins, 203–34.
- Henri, Fabiola (forthcoming). 'Morphomic structure in Mauritian: On change, complexity and creolization', *Morphology*.
- Henri, Fabiola and Alain Kihm (2015). 'The morphology of TMA marking in creole languages: A comparative study', *Word Structure* 8(2): 248–82. doi:10.3366/word.2015.0083
- Henri, Fabiola, Jean-Marie Marandin, and Anne Abeillé (2008). 'Information structure coding in Mauritian: Verum Focus expressed by long forms of verbs'. Paper presented at the Workshop on Predicate Focus, Verum Focus, Verb Focus, University of Potsdam.
- Hill, Jane H. (2001). 'Proto-Uto-Aztecan: A community of cultivators in Central America?', *American Anthropologist* 103: 913–34. doi:10.1525/aa.2001.103.4.913
- Hill, Jane H. (2010). 'New evidence for a Mesoamerican homeland for Proto-Uto-Aztecan', *PNAS* 107(11): E33. doi:10.1073/pnas.0914473107
- Hill, Nathan (2014). 'Grammatically conditioned sound change', *Language and Linguistics Compass* 8: 211–29. doi:10.1111/lnc3.12073
- Hippisley, Andrew, Marina Chumakina, Greville G. Corbett, and Dunstan Brown (2004). 'Suppletion: Frequency, categories and distribution of stems', *Studies in Language* 28(2): 387–418. doi:10.1075/sl.28.2.05hip
- Hock, Hans Henrich and Brian D. Joseph (1996). *Language History, Language Change, and Language Relationship*. Berlin: Walter de Gruyter.
- Hockett, Charles F. (1947). 'Problems of morphemic analysis', *Language* 23(4): 321–43.
- Hockett, Charles F. (1958). *A Course in Modern Linguistics*. New York: Macmillan.
- Hodge, Carleton (1970). 'The linguistic cycle', *Language Sciences* 13: 1–7. [Reprinted in Scott Noegel and Alan S. Kaye (eds) (2004), *Afroasiatic Linguistics, Semitics, and Egyptology: Selected Writings of Carleton T. Hodge*, Bethesda, MD: CDL Press, 1–17.]
- Hopper, Paul (1990). 'Where do words come from?', in William Croft, Keith Denning, and Suzanne Kemmer (eds), *Studies in Typology and Diachrony: Papers Presented to Joseph H. Greenberg on his 75th Birthday*. Amsterdam: John Benjamins, 151–60.
- Hualde, José Ignacio, Gorka Elordieta, and Arantzazu Elordeta (1994). *The Basque Dialect of Lekeitio*. Bilbo: Universidad del País Vasco/Euskal Herriko Unibertsitatea.
- Hualde, José Ignacio and Jon Ortiz de Urbina (2003). *A Grammar of Basque*. Berlin: Mouton de Gruyter.
- Huber, Christian (2011). 'Some notes on gender and number marking in Shumcho', in Gerda Lechleitner and Christian Liebl (eds), *Jahrbuch des Phonogrammarchivs*, vol. 2. Göttingen: Cuvillier Verlag, 52–90.
- Hudson, Carla L. and Elissa L. Newport. (1999). 'Creolization: Could adults really have done it all', in Annabel Greenhill, Heather Littlefield, and Cheryl Tano (eds), *Proceedings of the 23rd Annual Boston University Conference on Language Development*. Somerville: Cascadilla Press, 265–76.
- Hudson Kam, Carla L. and Elissa L. Newport (2005). 'Regularizing unpredictable variation: The roles of adult and child learners in language formation and change', *Language Learning and Development* 1(2): 151–95. doi:10.1080/15475441.2005.9684215
- Hudson Kam, Carla L. and Elissa L. Newport (2009). 'Getting it right by getting it wrong: When learners change languages', *Cognitive Psychology* 59(1): 30–66. doi:10.1016/j.cogpsych.2009.01.001
- Huldén, Lars (1972). 'Genussystemet i Karleby och Nedervetil', *Folkmålsstudier* 22: 47–82.

- Hull, Geoffrey (1998). 'The basic lexical affinities of Timor's Austronesian languages: A preliminary investigation', *Studies in the Languages and Cultures of East Timor* 1: 97–174.
- Hull, Geoffrey (1999). *Standard Tetum-English Dictionary*. Sydney: Allen & Unwin.
- Hultman, Oskar Fredrik (1894). *De östsvenska dialekterna*. Helsinki: Svenska landsmålsföreningen.
- Humboldt, Wilhelm von (1836). *Über die Verschiedenheit des menschlichen Sprachbaues und ihren Einfluss auf die geistige Entwicklung des Menschengeschlechts*. Berlin: F. Dümmler.
- Hyman, Larry M. (2004). 'How to become a Kwa verb', *Journal of West African Languages* 30: 69–88.
- Igartua, Iván (2019). 'Loss of grammatical gender and language contact', *Diachronica* 36: 181–221. doi:10.1075/dia.17004.iga
- Irvine, Judith (1978). 'Wolof noun classification: The social setting of divergent change', *Language in Society* 7: 37–64. doi:10.1017/S0047404500005327
- Irvine, Judith (2011). 'Société et communication chez les Wolof à travers le temps et l'espace', in Anna M. Diagne, Sascha Kessler, and Christian Meyer (eds), *Communication wolof et société sénégalaise. Héritage et création*. Paris: L'Harmattan, 37–70.
- Jakobson, Roman (1929). *Remarques sur l'évolution phonologique du russe comparée à celle des autres langues slaves*. Praha: Jednota československých matematiků a fysiků.
- Jakobson, Roman (1959). 'On linguistic aspects of translation', in Reuben A. Brower (ed.), *On Translation*. Cambridge, MA: Harvard University Press, 232–9.
- Jamieson, Carole Ann (1982). 'Conflated subsystems marking person and aspect in Chiquihuitlán Mazatec verbs', *International Journal of American Linguistics* 48(2): 139–67. doi:10.1086/465725
- Janda, Laura A. (1994). 'The spread of athematic 1sg *-m* in the major West Slavic languages', *The Slavic and East European Journal* 38(1): 90–119. doi:10.2307/308549
- Janhunen, Juha (2008). 'Mongolic as an expansive language family', in Tokusu Kurebito (ed.), *Past and Present Dynamics: The Great Mongolian State*. Tokyo: Tokyo University of Foreign Studies, Research Institute for Languages and Cultures of Asia and Africa, 127–37.
- Janse, Mark and Sijmen Tol (eds). (2003). *Language Death and Language Maintenance: Theoretical, Practical and Descriptive Approaches*. Amsterdam: John Benjamins.
- Jespersen, Otto (1949). *A Modern English Grammar on Historical Principles*. London: Allen & Unwin.
- Joanisse, Marc F. and Mark S. Seidenberg (2005). 'Imaging the past: Neural activation in frontal and temporal regions during regular and irregular past-tense processing', *Cognitive, Affective & Behavioral Neuroscience* 5(3): 282–96.
- Johnson, Jacqueline S., Kenneth D. Shenkman, Elissa L. Newport, and Douglas L. Medin (1996). 'Indeterminacy in the grammar of adult language learners', *Journal of Memory and Language* 35: 335–52. doi:10.1006/jmla.1996.0019
- Joseph, Brian D. and Richard D. Janda (1988). 'The how and why of diachronic morphologization and demorphologization', in Michael Hammond and Michael Noonan (eds), *Theoretical Morphology*. New York: Academic Press, 193–210.
- Joseph, John E. and Frederick J. Newmeyer (2012). '"All languages are equally complex": The rise and fall of a consensus', *Historiographia Linguistica* 39(2–3): 341–68. doi:10.1075/hl.39.2-3.08jos



- Juola, Patrick (1998). 'Measuring linguistic complexity: The morphological tier', *Journal of Quantitative Linguistics* 5: 206–13. doi:10.1080/09296179808590128
- Karatsareas, Petros (2009). 'The loss of grammatical gender in Cappadocian Greek', *Transactions of the Philological Society* 107: 196–230. doi:10.1111/j.1467-968X.2009.01217.x
- Karatsareas, Petros (2014). 'On the diachrony of gender in Asia Minor Greek: The development of semantic agreement in Pontic', *Language Sciences* 43: 77–101. doi:10.1016/j.langsci.2013.10.005
- Kelly, Barbara, Gillian Wigglesworth, Rachel Nordlinger, and Joseph Blythe (2014). 'The acquisition of polysynthetic languages', *Language and Linguistics Compass* 8(2): 51–64. doi:10.1111/lnc3.12062
- Kendall, Maurice and Jean Dickinson Gibbons (1990). *Rank Correlation Methods*. 5th ed. Oxford: Oxford University Press.
- Kibrik, Aleksandr E. (1991). 'Organizing principles for nominal paradigms in Daghestanian languages: Comparative and typological observations', in Frans Plank (ed.), *Paradigms: The Economy of Inflection*. Berlin: Mouton de Gruyter, 255–74.
- Kibrik, Aleksandr E. (2003). 'Nominal inflection galore: Daghestanian, with side glances at Europe and the world', in Frans Plank (ed.), *Noun Phrase Structure in the Languages of Europe*. Berlin: Mouton de Gruyter, 37–112.
- Kibrik, Andrej A. (2012). 'What's in the head of head-marking languages?', in Pirkko Suihkonen, Bernard Comrie, and Valery Solovyev (eds), *Argument Structure and Grammatical Relations: A Crosslinguistic Typology*. Amsterdam: John Benjamins, 211–40.
- Kielhorn, Franz (1871). *The Paribhāṣenduśekhara of Nāgajībhāṭṭa* (2 vols). Bombay: Indu-Prakāśh Press.
- Kihm, Alain (1994). *Kriyol Syntax*. Amsterdam: John Benjamins.
- Kihm, Alain (2014). 'Theories of morphology and theories of creole emergence: The inner connection'. *PAPIA*, São Paulo, 24(1): 43–89.
- Killian, Don (2015). *Topics in Uduk Phonology and Morphosyntax*. University of Helsinki PhD dissertation.
- Kirby, Simon, Hannah Cornish, and Kenny Smith (2008). 'Cumulative cultural evolution in the laboratory: An experimental approach to the origins of structure in human language', *Proceedings of the National Academy of Sciences* 105(31): 10681–6. doi:10.1073/pnas.0707835105
- Kiso, Andrea (2012). *Tense and Aspect in Chichewa, Citumbuka and Cisená: A Description and Comparison of the Tense-Aspect Systems in Three Southeastern Bantu Languages*. Stockholm University dissertation.
- Klausenburger, Jurgen (1976). '(De)morphologization in Latin', *Lingua* 40(4): 305–20. doi:10.1016/0024-3841(76)90082-6
- Klingler, Thomas (2003). *If I Could Turn My Tongue Like That: The Creole of Pointe Coupee Parish, Louisiana*. Baton Rouge: Louisiana State University Press.
- Kobès, Aloys (1869). *Grammaire de la langue volofe. Ouvrage nouveau*. Saint-Joseph de Ngasobil: Imprimerie de la Mission.
- Kobès, Aloys (1875). *Dictionnaire volof-français*. Saint-Joseph de Ngasobil: Mission Catholique [cited from the new edition: Kobès, Aloys and Olivier Abiven (1923), *Dictionnaire volof-français. Nouvelle édition revue et considérablement augmentée par le R. P. O. Abiven*. Dakar: Mission Catholique].
- Koopman, Hilda and Claire Lefebvre (1981). 'Haitian Creole *pu*', in Pieter C. Muysken (ed.), *Generative Studies on Creole Languages*. Dordrecht: Foris, 201–21.
- Koptjevskaja-Tamm, Maria and Bernhard Wälchli (2001). 'The Circum-Baltic languages: An areal-typological approach', in Östen Dahl and Maria Koptjevskaja-Tamm (eds),

- Circum-Baltic Languages*, vol. 2: *Grammar and Typology*. Amsterdam: John Benjamins, 615–750.
- Kortmann, Bernd and Benedikt Szmrecsanyi (eds) (2012). *Linguistic Complexity: Second Language Acquisition, Indigenization, Contact*. Berlin: De Gruyter.
- Krashnoukhova, Olga (2012). *The Noun Phrase in the Languages of South America*. Universiteit Nijmegen PhD dissertation.
- Kreyer, Rolf (2003). 'Genitive and *of*-construction in modern written English: Processability and human involvement', *International Journal of Corpus Linguistics* 8 (2): 169–207. doi:10.1075/ijcl.8.2.02kre
- Kusters, Wouter (2003). *Linguistic Complexity: The Influence of Social Change on Verbal Inflections*. Utrecht: LOT.
- Kusters, Wouter (2008). 'Complexity in linguistic theory, language learning and language change', in Matti Miestamo, Kaius Sinnemäki, and Fred Karlsson (eds), *Language Complexity: Typology, Contact, Change*. Amsterdam: John Benjamins, 3–22.
- Labouret, Henri (1935). 'Remarques sur la langue des wolof', in Nicolas Leca (ed.), *Les pêcheurs de Guet N'dar*. Paris: Larose, 16–27. [Reprinted in Gabriel Manessy and Serge Sauvageot (eds) (1963). *Wolof et Sérère. Études de phonétique et de grammaire descriptive*. Dakar: University of Dakar Press, 45–56.]
- Labov, William (1963). 'The social motivation of a sound change', *Word* 19: 273–309.
- Ladd, D. Robert, Seán G. Roberts, and Dan Dediú (2015). 'Correlational studies in typological and historical linguistics', *Annual Review of Linguistics* 1: 221–41. doi:10.1146/annurev-linguist-030514-124819
- Landaburu, Jon (2005). 'Expresión gramatical de lo epistémico en algunas lenguas del norte de Suramérica', *Proceedings of the Conference on Indigenous Languages of Latin America*, 1–13. URL: [lanic.utexas.edu/project/etext/llilas/cilla/landaburu2.pdf](http://lanic.utexas.edu/project/etext/llilas/cilla/landaburu2.pdf)
- Leclerc, Jacques (2015). *L'aménagement linguistique dans le monde*. URL: <http://www.axl.cefan.ulaval.ca/afrique/senegal.htm>
- Leer, Jeff (1991). 'Evidence for a Northern Northwest Coast language area: Promiscuous number marking and periphrastic possessive constructions in Haida, Eyak, and Aleut', *International Journal of American Linguistics* 57(2): 158–93. doi:10.1086/ijal.57.2.3519765
- Lefebvre, Claire (1998). *Creole Genesis and the Acquisition of Grammar*. Cambridge: Cambridge University Press.
- Lefebvre, Claire and Anne-Marie Brousseau (2002). *Fongbe*. Berlin: Mouton de Gruyter.
- Lehmann, Christian (1985). 'Grammaticalization: Synchronic variation and diachronic change', *Lingua e Stile* 20: 303–18.
- Lewis, Geoffrey L. (2001). *Turkish Grammar*. 2nd ed. Oxford: Oxford University Press.
- Lewis, M. Paul, Gary F. Simons, and Charles D. Fennig (eds) (2015). *Ethnologue: Languages of the World*. 18th ed. Dallas, TX: SIL International. URL: <http://www.ethnologue.com>
- Li, Charles N. and Sandra A. Thompson (1976). 'Development of the causative in Mandarin Chinese: Interaction of diachronic processes in syntax', in Masayoshi Shibatani (ed.), *The Grammar of Causative Constructions*. New York: Academic Press, 477–92.
- Li, Charles N. and Sandra A. Thompson (1981). *Mandarin Chinese: A Functional Reference Grammar*. Berkeley, CA: University of California Press.
- Lindström, Eva (2008). 'Language complexity and interlinguistic difficulty', in Matti Miestamo, Kaius Sinnemäki, and Fred Karlsson (eds), *Language Complexity: Typology, Contact, Change*. Amsterdam: John Benjamins, 217–42.

- Loporcaro, Michele (2018). *Gender from Latin to Romance: History, Geography, Typology*. Oxford: Oxford University Press.
- Loporcaro, Michele, Francesco Gardani, and Alberto Giudici (forthcoming). 'Contact-induced complexification in the gender system of Istro-Romanian'. *Journal of Language Contact*.
- Loporcaro, Michele and Tania Paciaroni (2011). 'Four gender-systems in Indo-European', *Folia Linguistica* 45(2): 389–434. doi:10.1515/flin.2011.015
- Lowe, Ivan (1999). 'Nambiquara', in Robert M. W. Dixon and Aikhenvald Y. Aikhenvald (eds), *The Amazonian Languages*. Cambridge: Cambridge University Press, 269–92.
- Ludwig, Ralph, Sylviane Telchid, and Florence Bruneau-Ludwig (eds) (2001). *Corpus créole*. Hamburg: Helmut Buske.
- Luis, Ana R. (2009). 'The loss and survival of inflectional morphology: Contextual vs. inherent inflection in creoles', in Sonia Colina, Antxon Olarrea, and Ana Carvalho (eds), *Romance Linguistics 2009*. Amsterdam: John Benjamins, 323–36.
- Luis, Ana R. (2014). 'Inflectional structure without morphemes: Similarities between creoles and non-creoles', *PAPIA*, São Paulo, 24(2): 381–406.
- Lüpke, Friederike and Mary Raymond (eds) (2010). *Documenting Atlantic-Mande Convergence and Diversity*. Special issue of the *Journal of language contact*—THEMA 3.
- Lupyan, Gary and Rick Dale (2010). 'Language structure is partly determined by social structure', *PLoS ONE* 5(1): e8559. doi:10.1371/journal.pone.0008559
- MacWhinney, Brian, Elizabeth Bates, and Reinhold Kliegl (1984). 'Cue validity and sentence interpretation in English, German, and Italian', *Journal of Verbal Learning and Verbal Behavior* 23(2): 127–50. doi:10.1016/S0022-5371(84)90093-8
- Madsen, David and David Rhode (1994). *Across the West: Human Population Movement and the Expansion of the Numa*. Salt Lake City, UT: University of Utah Press.
- Maiden, Martin (2005). 'Morphological autonomy and diachrony', in Geert E. Booij and Jaap van Marle (eds), *Yearbook of Morphology 2004*. Dordrecht: Springer, 137–75. doi:10.1007/1-4020-2900-4\_6
- Maiden, Martin (2013). '"Semi-autonomous" morphology? A problem in the history of the Italian (and Romanian) verb', in Silvio Cruschina, Martin Maiden, and John C. Smith (eds), *The Boundaries of Pure Morphology: Diachronic and Synchronic Perspectives*. Oxford: Oxford University Press, 24–44.
- Maiden, Martin (2018). *The Romance Verb: Morphomic Structure and Diachrony*. Oxford: Oxford University Press.
- Maiden, Martin, John C. Smith, Maria Goldbach, and Marc-Olivier Hinzelin (eds) (2011). *Morphological Autonomy: Perspectives from Romance Inflectional Morphology*. Oxford: Oxford University Press.
- Maitz, Péter and Attila Németh (2014). 'Language contact and morphosyntactic complexity: Evidence from German', *Journal of Germanic Linguistics* 26(1): 1–29. doi:10.1017/S1470542713000184
- Malone, Terrell A. (1988). 'The origin and development of Tuyuca evidentials', *International Journal of American Linguistics* 54: 119–40. doi:10.1086/466079
- Manessy, Gabriel and Serge Sauvageot (eds) (1963). *Wolof et Sérère. Études de phonétique et de grammaire descriptive*. Dakar: University of Dakar Press.
- Mansfield, John (2014). *Polysynthetic Sociolinguistics: The Language and Culture of Murrinh Patha Youth*. Australian National University PhD dissertation.
- Mansfield, John (2015a). 'Consonant lenition as a sociophonetic variable in Murrinh Patha (Australia)', *Language Variation and Change* 27(2): 203–25. doi:10.1017/S0954394515000046

- Mansfield, John (2015b). 'Morphotactic variation, prosodic domains and the changing structure of the Murrinhpatha verb', *Asia-Pacific Language Variation* 1(2): 163–89. doi:10.1075/aplv.1.2.03man
- Mansfield, John (2016). 'Intersecting formatives and inflectional predictability: How do speakers and learners predict the correct form of Murrinhpatha verbs?', *Word Structure* 9(2): 183–214. doi:10.3366/word.2016.0093
- Mansfield, John (2019). *Murrinhpatha Morphology and Phonology*. Berlin: De Gruyter Mouton.
- Marschner, Ian C. (2011). 'glm2: Fitting generalized linear models with convergence problems', *The R Journal* 3(2): 12–15.
- Marslen-Wilson, William D. (2007). 'Morphological processes in language comprehension', in M. Gareth Gaskell (ed.), *The Oxford Handbook of Psycholinguistics*. Oxford: Oxford University Press, 175–93.
- Marzi, Claudia, Marcello Ferro, Ouafae Nahli, Patrizia Belik, Stavros Bompolas, and Vito Pirrelli (2018). 'Evaluating inflectional complexity crosslinguistically: A processing perspective', in Nicoletta Calzolari (ed.), *LREC 2018: Eleventh International Conference on Language Resources and Evaluation: May 7–12, 2018, Miyazaki, Japan*. Paris: European Language Resources Association ELRA, article n. 745.
- Matras, Yaron (1998). 'Utterance modifiers and universals of grammatical borrowing', *Linguistics* 36: 281–331. doi:10.1515/ling.1998.36.2.281
- Matras, Yaron (2009). *Language Contact*. Cambridge: Cambridge University Press.
- Matras, Yaron and Jeanette Sakel (eds) (2007). *Grammatical Borrowing in Cross-Linguistic Perspective*. Berlin: Mouton de Gruyter.
- Matthews, Peter H. (1972). *Inflectional Morphology*. Cambridge: Cambridge University Press.
- Matthews, Peter H. (1991). *Morphology*. 2nd ed. Cambridge: Cambridge University Press.
- McGregor, William (2010). 'Optional ergative case marking systems in a typological-semiotic perspective', *Lingua* 120: 1610–36. doi:10.1016/j.lingua.2009.05.010
- McGregor, William and Jean-Christophe Verstraete (2010). 'Optional ergative marking and its implications for linguistic theory', *Lingua* 120: 1607–9. doi:10.1016/j.lingua.2009.05.009
- Mc Laughlin, Fiona (1997). 'Noun classification in Wolof: When affixes are not renewed', *Studies in African Linguistics* 26(1): 1–28.
- Mc Laughlin, Fiona (2000). 'Consonant mutation and reduplication in Seereer-Siin', *Phonology* 17: 333–63. doi:10.1017/S0952675701003955
- Mc Laughlin, Fiona (2001). 'Dakar Wolof and the configuration of an urban identity', *Journal of African Cultural Studies* 14(2): 153–72. doi:10.1080/13696810120107104
- McLeod, A. Ian (2011). 'Package "Kendall"'. R package documentation'. URL: <https://cran.r-project.org/web/packages/Kendall/Kendall.pdf>
- McWhorter, John H. (1994). 'From focus marker to copula in Swahili', in Kevin E. Moore, David Peterson, and Comfort Wentum (eds), *Proceedings of the Berkeley Linguistics Society, Special Session on Historical Issues in African Linguistics*. Berkeley, CA: Berkeley Linguistics Society, 57–66.
- McWhorter, John H. (1998). 'Identifying the creole prototype: Vindicating a typological claim', *Language* 74: 788–818. doi:10.2307/417003
- McWhorter, John H. (2001). 'The world's simplest grammars are creole grammars', *Linguistic Typology* 5(2–3): 125–66. doi:10.1515/lity.2001.001
- McWhorter, John H. (2002). 'What happened to English?', *Diachronica* 19: 217–72. doi:10.1075/dia.19.2.02wha

- McWhorter, John H. (2005). *Defining Creole*. New York: Oxford University Press.
- McWhorter, John H. (2007). *Language Interrupted: Signs of Non-Native Acquisition in Standard Language Grammars*. New York: Oxford University Press.
- McWhorter, John H. (2008). 'Why does a language undress? Strange cases in Indonesia', in Matti Miestamo, Kaius Sinnemäki, and Fred Karlsson (eds), *Language Complexity: Typology, Contact, Change*. Amsterdam: John Benjamins, 167–90.
- McWhorter, John H. (2011). *Linguistic Simplicity and Complexity: Why Do Languages Undress?* Berlin: Walter de Gruyter.
- McWhorter, John H. (2012). 'Case closed? Testing the Feature Pool Hypothesis', *Journal of Pidgin and Creole Languages* 27: 171–82. doi:10.1075/jpcl.27.1
- McWhorter, John H. (2016). 'Is radical analyticity normal? Implications of Niger-Congo and Sino-Tibetan for typology and diachronic theory', in Elly van Gelderen (ed.), *Cyclical Change Continued*. Amsterdam: John Benjamins, 49–91. doi:10.1075/la.227.03mcw
- McWhorter, John H. (2018). *The Creole Debate*. Cambridge: Cambridge University Press.
- McWhorter, John H. (2019). 'The radically isolating languages of Flores: A challenge to diachronic theory', *Journal of Historical Linguistics* 9: 177–207. doi:10.1075/jhl.16021.mcw
- Meakins, Felicity (2009). 'The case of the shifty ergative marker: A pragmatic shift in the ergative marker in one Australian mixed language', in Jóhanna Barðdal and Shobhana L. Chelliah (eds), *The Role of Semantic, Pragmatic, and Discourse Factors in the Development of Case*. Amsterdam: John Benjamins, 59–91.
- Meakins, Felicity (2011). *Case Marking in Contact: The Development and Function of Case Morphology in Gurindji Kriol*. Amsterdam: John Benjamins.
- Meakins, Felicity (2013). 'Gurindji Kriol', in Susanne Maria Michaelis, Philippe Maurer, Martin Haspelmath, and Magnus Huber (eds), *The Survey of Pidgin and Creole Languages*, vol. III: *Contact Languages Based on Languages from Africa, Asia, Australia and the Americas*. Oxford: Oxford University Press, 131–9.
- Meakins, Felicity (2015). 'From absolutely optional to only nominally ergative: The life cycle of the Gurindji Kriol ergative suffix', in Francesco Gardani, Peter Arkadiev, and Nino Amiridze (eds), *Borrowed Morphology*. Berlin: Mouton de Gruyter, 189–218.
- Meakins, Felicity, Patrick McConvell, Erika Charola, Norm McNair, Helen McNair, and Lauren Campbell (2013). *Gurindji to English dictionary*. Batchelor, Australia: Batchelor Press.
- Meakins, Felicity and Rachel Nordlinger (2014). *A Grammar of Binarra: An Australian Aboriginal Language of the Northern Territory*. Berlin: Mouton de Gruyter.
- Meakins, Felicity and Carmel O'Shannessy (2010). 'Ordering arguments about: Word order and discourse motivations in the development and use of the ergative marker in two Australian mixed languages', *Lingua* 120(7): 1693–713. doi:10.1016/j.lingua.2009.05.013
- Meakins, Felicity, Xia Hua, Cassandra Algy, and Lindell Bromham (2019). 'Birth of a contact language did not favor simplification', *Language* 95(2): 294–332. doi:10.1353/lan.2019.0032
- Meeuwis, Michael (2013). 'Lingala', in Susanne Maria Michaelis, Philippe Maurer, Martin Haspelmath, and Magnus Huber (eds), *The Survey of Pidgin and Creole Languages*, vol. III: *Contact Languages Based on Languages from Africa, Asia, Australia and the Americas*. Oxford: Oxford University Press, 25–33.
- Meijer, Guus and Pieter C. Muysken (1977). 'On the beginnings of pidgin and creole studies: Schuchardt and Hesseling', in Albert Valdman (ed.), *Pidgin and Creole Linguistics*. Bloomington: Indiana University Press, 21–48.
- Mel'čuk, Igor (1994). 'Suppletion: Toward a logical analysis of the concept', *Studies in Language* 18: 339–410. doi:10.1075/sl.18.2.03mel

- Merrill, William L. (2012). 'The historical linguistics of Uto-Aztecan agriculture', *Anthropological Linguistics* 54(3): 203–60. doi:10.1353/anl.2012.0017
- Meyerhoff, Miriam (2009). 'Animacy in Bislama: Using quantitative methods to evaluate transfer of a substrate feature', in James Stanford and Dennis Preston (eds), *Variation in Indigenous Minority Languages*. Amsterdam: John Benjamins, 369–96.
- Michael, Lev (2008). *Nanti Evidential Practice: Language, Knowledge, and Social Action in an Amazonian Society*. University of Texas at Austin PhD dissertation.
- Michael, Lev, William Chang, and Tammy Stark (2014). 'Exploring phonological areality in the Circum-Andean region using a naive Bayes classifier', *Language Dynamics and Change* 4(1): 27–86. doi:10.1163/22105832-00401004
- Miestamo, Matti (2008). 'Grammatical complexity in a cross-linguistic perspective', in Matti Miestamo, Kaius Sinnemäki, and Fred Karlsson (eds), *Language Complexity: Typology, Contact, Change*. Amsterdam: John Benjamins, 23–41.
- Miestamo, Matti (2017). 'Linguistic diversity and complexity', *Lingue e Linguaggio* 16(2). 227–54.
- Miestamo, Matti, Kaius Sinnemäki, and Fred Karlsson (eds) (2008). *Language Complexity: Typology, Contact, Change*. Amsterdam: John Benjamins.
- Mihas, Elena (2015). *A Grammar of Alto Perené (Arawak)*. Berlin: De Gruyter Mouton.
- Milin, Petar, Victor Kuperman, Aleksandar Kostić, and R. Harald Baayen (2009). 'Words and paradigms bit by bit: An information-theoretic approach to the processing of paradigmatic structure in inflection and derivation', in James P. Blevins and Juliette Blevins (eds), *Analogy in Grammar: Form and Acquisition*. Oxford: Oxford University Press, 214–52.
- Miller, Wick R. (1983). 'Uto-Aztecan languages', in Alfonso Ortiz (ed.), *Handbook of North American Indians*, vol. 10: *Southwest*. Washington, DC: Smithsonian Institution, 113–24.
- Mithun, Marianne (1988). 'System-defining structural properties in polysynthetic languages', *Zeitschrift für Phonetik, Sprachwissenschaft und Kommunikationsforschung* 41(4): 442–52.
- Mithun, Marianne (1989). 'The acquisition of polysynthesis', *Journal of Child Language* 16: 285–312. doi:10.1017/S0305000900010424
- Mithun, Marianne (1996). 'General characteristics of North American Indian languages', in Ives Goddard (ed.), *Handbook of North American Indians*, vol. 17: *Languages*. Washington, DC: Smithsonian Institution, 137–57.
- Mithun, Marianne (1998). 'Yup'ik roots and affixes', in Osahito Miyaoka and Minoru Oshima (eds), *Languages of the North Pacific Rim*, vol. 4. Kyoto: Kyoto University Graduate School of Letters, 63–76.
- Mithun, Marianne (2007). 'Grammar, contact, and time', *Journal of Language Contact*. THEMA 1: 133–55.
- Mithun, Marianne (2015). 'Morphological complexity and language contact in languages indigenous to North America', *Linguistic Discovery* 13(2): 37–59.
- Mithun, Marianne (2016). 'Affix ordering: Motivation and interpretation', in Andrew Hippisley and Gregory Stump (eds), *The Cambridge Handbook of Morphology*. Cambridge: Cambridge University Press, 149–85.
- Miyaoka, Osahito (2011). *A Grammar of Central Alaskan Yupik (CAY)*. Berlin: de Gruyter Mouton.
- Moscoso del Prado Martín, Fermín (2003). *Paradigmatic Structures in Morphological Processing: Computational and cross-linguistics studies*. University of Nijmegen PhD dissertation.

- Moscoso del Prado Martín, Fermín (2011). 'The mirage of morphological complexity', in Laura Carlson, Christoph Hoelscher, and Thomas F. Shipley (eds), *Proceedings of the 33rd Annual Conference of the Cognitive Science Society*. Austin, TX: Cognitive Science Society, 3524–9.
- Moscoso del Prado Martín, Fermín, Aleksandar Kostic, and R. Harald Baayen (2004). 'Putting the bits together: An information-theoretical perspective on morphological processing', *Cognition* 94(1): 1–18.
- Mufwene, Salikoko S. (2001). *The Ecology of Language Evolution*. Cambridge: Cambridge University Press.
- Mufwene, Salikoko S. (2008). *Language Evolution: Contact, Competition, and Change*. London: Continuum Press.
- Mufwene, Salikoko S. (2009). 'Restructuring, hybridization, and complexity in language evolution', in Enoch O. Aboh and Norval Smith (eds), *Complex Processes in New Languages*. Amsterdam: John Benjamins, 367–400.
- Mufwene, Salikoko S., François Pellegrino, and Christophe Coupé (eds) (2017). *Complexity in Language: Developmental and Evolutionary Perspectives*. Cambridge: Cambridge University Press.
- Mugdan, Joachim (1994). 'Morphological units', in Ron Asher (ed.), *The Encyclopedia of Language and Linguistics*. Oxford: Pergamon Press, 2543–53.
- Mühlhäusler, Peter (1997). *Pidgin and Creole Linguistics*. London: University of Westminster.
- Mukarovsky, Hans (1977). *A Study of Western Nigritic*, vol. I. Wien: Institut für Ägyptologie und Afrikanistik der Universität Wien.
- Müller, Neele (2013). *Tense, Aspect, Modality, and Evidential Marking in South American Indigenous Languages*. Utrecht: LOT.
- Munro, Pamela and Dieynaba Gaye (1997). *Ay Baati Wolof: A Wolof Dictionary*. Revised ed. Los Angeles: Department of Linguistics CLA.
- Muysken, Pieter C., Harald Hammarström, Joshua Birchall, Swintha Danielsen, Love Eriksen, Ana Vilacy Galucio, Rik van Gijn, Simon van de Kerke, Vishnupraya Kolipakam, Olga Krasnoukhova, Neele Müller, and Loretta O'Connor (2014). 'The languages of South America: Deep families, areal relationships, and language contact', in Loretta O'Connor and Pieter C. Muysken (eds), *The Native Languages of South America*. Cambridge: Cambridge University Press, 299–322.
- Myers-Scotton, Carol (2002). *Contact Linguistics: Bilingual Encounters and Grammatical Outcomes*. Oxford: Oxford University Press.
- Nakagawa, Shinichi and Holger Schielzeth (2013). 'A general and simple method for obtaining R<sup>2</sup> from generalized linear mixed-effects models', *Methods in Ecology and Evolution* 4(2): 133–42.
- Nash, David (1980). *Topics in Warlpiri Grammar*. Massachusetts Institute of Technology PhD dissertation.
- Ndiaye, Moussa D. (2004). *Éléments de morphologie du wolof. Méthodes d'analyse en linguistique*. München: LINCOM Europa.
- Nettle, Daniel (2012). 'Social scale and structural complexity in human languages', *Philosophical Transactions of the Royal Society B: Biological Sciences* 367(1597): 1829–36. doi:10.1098/rstb.2011.0216
- Neubauer, Kathleen and Harald Clahsen (2009). 'Decomposition of inflected words in a second language: An experimental study of German participles', *Studies in Second Language Acquisition* 31(3): 403–35. doi:10.1017/S0272263109090354

- Newmeyer, Frederick J. and Laurel B. Preston (eds) (2014). *Measuring Grammatical Complexity*. Oxford: Oxford University Press.
- Nichols, Johanna (1986). 'Head-marking and dependent-marking grammar', *Language* 62(1): 56–119.
- Nichols, Johanna (1992). *Linguistic Diversity in Space and Time*. Chicago: University of Chicago Press.
- Nichols, Johanna (2003). 'Diversity and stability in language', in Brian D. Joseph and Richard Janda (eds), *The Handbook of Historical Linguistics*. Oxford: Blackwell, 283–310.
- Nichols, Johanna (2005). 'The origin of the Chechen and Ingush: A study in alpine linguistic and ethnic geography', *Anthropological Linguistics* 46: 129–55.
- Nichols, Johanna (2009). 'Linguistic complexity: A comprehensive definition and survey', in Geoffrey Sampson, David Gil, and Peter Trudgill (eds), *Language Complexity as an Evolving Variable*. Oxford: Oxford University Press, 110–25.
- Nichols, Johanna (2013). 'The vertical archipelago: Adding the third dimension to linguistic geography', in Peter Auer, Martin Hilpert, Anja Stukenbrock, and Benedikt Szmrecsanyi (eds), *Space in Language and Linguistics*. Berlin: Mouton de Gruyter, 38–60.
- Nichols, Johanna (2015). 'Complexity as non-canonicity: An affordable, reliable metric for morphology'. Paper given at the 48th annual meeting of the Societas Linguistica Europaea (SLE), Leiden.
- Nichols, Johanna (2016). 'Complex edges, transparent frontiers: Grammatical complexity and language spreads', in Raffaella Baechler and Guido Seiler (eds), *Complexity, Isolation, and Variation*. Berlin: de Gruyter, 117–37.
- Nichols, Johanna (2017). 'Person as an inflectional category', *Linguistic Typology* 21(3): 387–456. doi:10.1515/lingty-2017-0010
- Nichols, Johanna (2019). 'Why is gender so complex? Some typological considerations', in Francesca Di Garbo, Bruno Olsson, and Bernhard Wälchli (eds), *Grammatical Gender and Linguistic Complexity*, vol. I: *General Issues and Specific Studies*. Berlin: Language Sciences Press, 63–92.
- Nichols, Johanna (in prep.). *The languages of the Great Caucasus range*.
- Nichols, Johanna, Jonathan Barnes, and David A. Peterson (2006). 'The robust bell curve of morphological complexity', *Linguistic Typology* 10(1): 96–106.
- Nichols, Johanna and Christian Bentz (2018). 'Morphological complexity of languages reflects the settlement history of the Americas', in Katerina Harvati, Gerhard Jäger, and Hugo Reyes-Centano (eds), *New Perspectives on the Peopling of the Americas*. Tübingen: Kerns, 13–26.
- Nichols, Johanna and Yuri Lander (2020). 'Head-dependent marking', in Mark Aronoff (ed.), *Oxford Research Encyclopedia of Linguistics*. New York: Oxford University Press. DOI: 10.1093/acrefore/9780199384655.013.523
- Njie, Codu Mbassy (1982). *Description syntaxique du wolof de Gambie*. Dakar: Nouvelles Editions africaines.
- Nordlinger, Rachel (2011). 'Transitivity in Murrinh-Patha', *Studies in Language* 35(3): 702–34. doi:10.1075/sl.35.3.08nor
- Nordlinger, Rachel (2015). 'Inflection in Murrinh-Patha', in Matthew Baerman (ed.), *The Oxford Handbook of Inflection*. Oxford: Oxford University Press, 491–519.
- Nordlinger, Rachel (2017). 'The languages of the Daly River region (Northern Australia)', in Michael Fortescue, Marianne Mithun, and Nicholas Evans (eds), *The Oxford Handbook of Polysynthesis*. Oxford: Oxford University Press, 782–807.



- Nordlinger, Rachel and Patrick Caudal (2012). 'The tense, aspect and modality system in Murrinh-Patha', *Australian Journal of Linguistics* 32(1): 73–112. doi:10.1080/07268602.2012.657754
- Norman, Jerry (1988). *Chinese*. Cambridge: Cambridge University Press.
- Nurse, Derek (2007). 'Did the proto-Bantu verb have a synthetic or an analytic structure?', *SOAS Working Papers in Linguistics* 15: 239–56.
- Nurse, Derek (2008). *Tense and Aspect in Bantu*. New York: Oxford University Press.
- O'Connor, Catherine, Joan Maling, and Barbora Skarabela (2013). 'Nominal categories and the expression of possession: A cross-linguistic study of probabilistic tendencies and categorial constraints', in Kersti Börjars, David Denison, and Alan Scott (eds), *Morphosyntactic Categories and the Expression of Possession*. Amsterdam: John Benjamins, 89–121.
- Olawsky, Knut (2006). *A Grammar of Urarina*. Berlin: Mouton de Gruyter.
- Ospina Bozzi, Ana María (2002). *Les structures élémentaires du Yuhup Maku, langue de l'Amazonie Colombienne: Morphologie et syntaxe*. Université Paris 7—Denis Diderot PhD dissertation.
- Öztürk, Balkız and Markus A. Pöchtrager (2011). *Pazar Laz*. München: LINCOM Europa.
- Paauw, Scott (2007). 'A North Papua linguistic area?'. Paper given at the 'Workshop on the Languages of Papua', Manokwari.
- Parker, Jeff (2016). *Inflectional Complexity and Cognitive Processing: An Experimental and Corpus-Based Investigation of Russian Nouns*. The Ohio State University PhD dissertation.
- Parker, Jeff, Robert Reynolds, and Andrea D. Sims (to appear). 'The role of language-specific network properties in the emergence of inflectional irregularity', in Andrea D. Sims, Adam Ussishkin, Jeff Parker, and Samantha Wray (eds), *Morphological Typology and Linguistic Cognition*. Cambridge: Cambridge University Press.
- Parkvall, Mikael (2008). 'The simplicity of creoles in cross-linguistic perspective', in Matti Miestamo, Kaius Sinnemäki, and Fred Karlsson (eds), *Language Complexity: Typology, Contact, Change*. Amsterdam: John Benjamins, 265–85.
- Payne, Doris L. (1990). 'Morphological characteristics of lowland South American languages', in Doris L. Payne (ed.), *Amazonian Linguistics: Studies in Lowland South American Languages*. Austin, TX: University of Texas Press, 213–41.
- Payne, Doris L. (2007). 'Source of the Yagua nominal classification system', *International Journal of American Linguistics* 73(4): 447–74. doi:10.1086/523773
- Payne, John (2013). 'The oblique genitive in English', in Kersti Börjars, David Denison, and Alan Scott (eds), *Morphosyntactic Categories and the Expression of Possession*. Amsterdam: John Benjamins, 178–92.
- Payne, Thomas (1997). *Describing Morphosyntax*. Cambridge: Cambridge University Press.
- Perrin, Loïc-Michel (2012). *L'expression du temps en wolof—langue atlantique parlée au Sénégal*. Köln: Köppe.
- Perrott, D. V. (1950). *Teach Yourself Swahili*. New York: Random House.
- Pienemann, Manfred (1998). *Language Processing and Second Language Development: Processability Theory*. Amsterdam: John Benjamins.
- Pinheiro, José C. and Douglas M. Bates (2000). *Mixed-Effects Models in S and S-PLUS*. New York: Springer.
- Pinker, Steven and Alan Prince (1988). 'On language and connectionism: Analysis of a parallel distributed processing model of language acquisition', *Cognition* 28: 73–193. doi:10.1016/0010-0277(88)90032-7

- Pirrelli, Vito (2000). *Paradigmi in morfologia. Un approccio interdisciplinare alla flessione verbale dell'italiano*. Pisa: Istituti Editoriali e Poligrafici Italiani.
- Pirrelli, Vito, Marcello Ferro, and Claudia Marzi (2015). 'Computational complexity of abstractive morphology', in Matthew Baerman, Dunstan Brown, and Greville Corbett (eds), *Understanding and Measuring Morphological Complexity*. Oxford: Oxford University Press, 141–66.
- Plag, Ingo (2003a). 'Introduction: The morphology of creole languages', in Geert Booij and Jaap van Marle (eds), *Yearbook of Morphology 2002*. Alphen aan den Rijn: Kluwer, 1–2. doi:10.1007/0-306-48223-1\_1
- Plag, Ingo (2003b). *Phonology and Morphology of Creole Languages*. Tübingen: Niemeyer.
- Plag, Ingo (2008). 'Creoles as interlanguages: Inflectional morphology', *Journal of Pidgin and Creole Languages* 23: 114–35. doi:10.1075/jpcl.23.1.06pla
- Plank, Frans (1986). 'Paradigm size, morphological typology, and universal economy', *Folia Linguistica* 20(1–2): 29–48. doi:10.1515/flin.1986.20.1-2.29
- Pozdniakov, Konstantin (1993). *Sravnitel'naja grammatika atlantičeskich jazykov*. Moscow: Nauka.
- Pozdniakov, Konstantin (2015). 'Diachronie des classes nominales atlantiques. Morphonologie, morphologie, sémantique', in Denis Creissels and Konstantin Pozdniakov (eds), *Les classes nominales dans les langues atlantiques*. Köln: Köppe, 57–102.
- Pozdniakov, Konstantin and Stéphane Robert (2015). 'Les classes nominales en wolof. Fonctionnalités et singularités d'un système restreint', in Denis Creissels and Konstantin Pozdniakov (eds), *Les classes nominales dans les langues atlantiques*. Köln: Köppe, 545–628.
- Prasada, Sandeep and Steven Pinker (1993). 'Generalisation of regular and irregular morphological patterns', *Language and Cognitive Processes* 8(1): 1–56. doi:10.1080/01690969308406948
- Pye, Br John MSC (1972). *The Port Keats Story*. Darwin: Colemans.
- Rambaud, Jean-Baptiste (1898). 'De la détermination en wolof', *Bulletin de la Société de Linguistique de Paris* 10: 122–36. [Reprinted in Gabriel Manessy and Serge Sauvageot (eds) (1963). *Wolof et Sérèr. Études de phonétique et de grammaire descriptive*. Dakar: University of Dakar Press, 11–24.]
- Reid, Nicholas (1990). *Ngan'gityemmerri: A Language of the Daly River Region, Northern Territory of Australia*. Australian National University PhD dissertation.
- Reintges, Chris (2015). 'Increasing morphological complexity and how syntax drives morphological change', in Theresa Biberauer and George Walkden (eds), *Syntax Over Time: Lexical, Morphological, and Information-Structural Interactions*. Oxford: Oxford University Press, 124–45.
- Rescher, Nicholas (1998). *Complexity: A Philosophical Overview*. New Brunswick, NJ: Transaction Publishers.
- Rhodes, Richard (1987). 'Paradigms large and small', *Proceedings of the 13th Annual Meeting of the Berkeley Linguistics Society*. Berkeley, CA: Berkeley Linguistics Society, 223–34.
- Rice, Keren (2011). 'Principles of affix ordering: An overview', *Word Structure* 4(2): 169–200. doi:10.3366/word.2011.0009
- Roberts, Ian (1999). 'Verb movement and markedness', in Michel deGraff (ed.), *Language Change: Creolization, Diachrony, and Development*. Cambridge, MA: The MIT Press, 287–328.

- Roberts, Sarah J. and Joan Bresnan (2008). 'Retained inflectional morphology in pidgins: A typological study', *Linguistic Typology* 12(2): 269–302. doi:10.1515/LITY.2008.039
- Roberts, Seán (2018). 'Chield: Causal hypotheses in evolutionary linguistics database', in Christine Cuskley, Molly Flaherty, Hannah Little, Luke McCrohon, Andrea Ravignani, and Tessa Verhoef (eds): *The Evolution of Language: Proceedings of the 12th International Conference (EVLANG12)*. doi:10.12775/3991-1.099
- Robins, R. H. (1958). *The Yurok Language: Grammar, Texts, Lexicon*. Berkeley, CA: University of California Press.
- Romaine, Suzanne (1988). *Pidgin and Creole Languages*. London: Longman.
- Rottet, Kevin J. (1992). 'Functional categories and verb movement in Louisiana creole', *Probus* 4: 261–89. doi:10.1515/prbs.1992.4.3.261
- Russell, Kevin (1999). 'What's with all these long words anyway?', in Leora Bar-El, Rose-Marie Dechaine, and Charlotte Reinholtz (eds), *Papers from the Workshop on Structure and Constituency in Native American Languages*. Cambridge, MA: The MIT Press, 119–30.
- Sadock, Jerrold (2017). 'The subjectivity of the notion of polysynthesis', in Michael Fortescue, Marianne Mithun, and Nicholas Evans (eds), *The Oxford Handbook of Polysynthesis*. Oxford: Oxford University Press, 99–114.
- Saffran, Jenny R., Richard N. Aslin, and Elissa L. Newport (1996). 'Statistical learning by 8-month infants', *Science* 274(5294): 1926–8. doi:10.1126/science.274.5294.1926
- Sagot, Benoît and Géraldine Walther (2011). 'Non-canonical inflection: Data, formalisation and complexity measures', in Cerstin Mahlow and Michael Piotrowski (eds), *Systems and Frameworks for Computational Morphology*. Berlin: Springer, 23–45. doi:10.1007/978-3-642-23138-4\_3
- Samara, Anna, Kenny Smith, Helen Brown, and Elizabeth Wonnacott (2017). 'Acquiring variation in an artificial language: Children and adults are sensitive to socially conditioned linguistic variation', *Cognitive Psychology* 94: 85–114. doi:10.1016/j.cogpsych.2017.02.004
- Sampson, Geoffrey, David Gil, and Peter Trudgill (eds) (2009). *Language Complexity as an Evolving Variable*. Oxford: Oxford University Press.
- Sapir, Edward (1921). *Language: An Introduction to the Study of Speech*. New York: Harcourt, Brace & Co.
- Sapir, J. David (1965). *A Grammar of Diola-Fogny, a Language Spoken in the Basse-Casamance Region of Senegal*. Cambridge: Cambridge University Press.
- Sapir, J. David (1971). 'West Atlantic: An inventory of the languages, their noun class systems and consonant alternation', in Thomas Sebeok (ed.), *Current Trends in Linguistics*, vol. VII: *Linguistics in Sub-Saharan Africa*. The Hague: Mouton, 44–112.
- Sauvageot, Serge (1965). *Description synchronique d'un dialecte Wolof. Le parler du Dyolof*. Dakar: Institut Français de l'Afrique Noire.
- Sauvageot, Serge (1967). 'Note sur la classification nominale en baïnouk', in Gabriel Manessy (ed.), *La classification nominale dans les langues négro-africaines*. Paris: CNRS, 225–36.
- Scalise, Sergio (1984). *Morfologia lessicale*. Padova: CLESP.
- Schiering, René, Balthasar Bickel, and Kristine Hildebrandt (2010). 'The prosodic word is not universal, but emergent', *Journal of Linguistics* 46: 657–710. doi:10.1017/S0022226710000216
- Schlegel, Friedrich von (1808). *Über die Sprache und Weisheit der Indier. Ein Beitrag zur Begründung der Alterthumskunde*. Heidelberg: Mohr & Zimmer.

- Schreuder, Robert and R. Harald Baayen (1997). 'How simplex complex words can be', *Journal of Memory and Language* 37: 118–39. doi:10.1006/jmla.1997.2510
- Schwegler, Armin (2013). 'Palenquero structure dataset', in Susanne Maria Michaelis, Philippe Maurer, Martin Haspelmath, and Magnus Huber (eds), *Atlas of Pidgin and Creole Language Structures Online*. Leipzig: Max Planck Institute for Evolutionary Anthropology. URL: <http://apics-online.info/contributions/48>
- Seeger, Guillaume (2010). 'Isolates in Atlantic'. Paper given at the workshop 'Language Isolates in Africa', 4 December, Lyon.
- Seifart, Frank (2005). *The Structure and Use of Shape-Based Noun Classes in Miraña (North West Amazon)*. Universiteit Nijmegen PhD dissertation.
- Seifart, Frank (2011). *Bora Loans in Resígaro: Massive Morphological and Little Lexical Borrowing in a Moribund Arawakan Language*. Cadernos de Etnolingüística, Série Monografias 2 [online publisher].
- Seifart, Frank and Doris Payne (2007). 'Nominal classification in the Northwest Amazon: Issues in areal diffusion and typological characterization', *International Journal of American Linguistics* 73(4): 381–7. doi:10.1086/523770
- Seuren, Pieter (1990). 'Verb syncopation and predicate raising in Mauritian Creole', *Theoretical Linguistics* 1(13): 804–44. doi:10.1515/ling.1990.28.4.809
- Seuren, Pieter (1998). *Western Linguistics: An Historical Introduction*. Oxford: Blackwell.
- Seuren, Pieter and Herman Wekker (1986). 'Semantic transparency as a factor in creole genesis', in Pieter Muysken and Norval Smith (eds), *Substrata versus Universals in Creole Genesis*. Amsterdam: John Benjamins, 57–70.
- Shalizi, Cosma Rohilla (2001). 'Causal architecture, complexity and self-organization in the time series and cellular automata'. University of Wisconsin-Madison PhD dissertation.
- Shannon, Claude E. (1948). 'A mathematical theory of communication', *Bell System Technical Journal* 27(3): 379–423.
- Shost, Ryan (2006). 'Correlating complexity: A typological approach', *Linguistic Typology* 10(1): 1–40. doi:10.1515/LINGTY.2006.001
- Silva, Wilson de Lima (2012). *A Descriptive Grammar of Desano*. University of Utah PhD dissertation.
- Sims, Andrea D. (2015). *Inflectional Defectiveness*. Cambridge: Cambridge University Press.
- Sims, Andrea D. and Jeff Parker (2016). 'How inflection class systems work: On the informativity of implicative structure', *Word Structure* 9(2): 215–39. doi:10.3366/word.2016.0094
- Sinnemäki, Kaius (2008). 'Complexity trade-offs in core argument marking', in Matti Miestamo, Kaius Sinnemäki, and Fred Karlsson (eds), *Language Complexity: Typology, Contact, Change*. Amsterdam: John Benjamins, 67–88.
- Sinnemäki, Kaius (2011). *Language Universals and Linguistic Complexity: Three Case Studies in Core Argument Marking*. University of Helsinki PhD dissertation.
- Sinnemäki, Kaius (2014). 'Global optimization and complexity trade-offs', *Poznań Studies in Contemporary Linguistics* 50(2): 179–95. doi: 10.1515/psicl-2014-0013
- Smith, Kenny, Amy Perfors, Olga Fehér, Anna Samara, Kate Swoboda, and Elizabeth Wonnacott (2017). 'Language learning, language use and the evolution of linguistic variation', *Philosophical Transactions of the Royal Society B* 372(1711): 20160051. doi:10.1098/rstb.2016.0051
- Smith, Kenny and Elizabeth Wonnacott (2010). 'Eliminating unpredictable variation through iterated learning', *Cognition* 116(3): 444–9. doi:10.1016/j.cognition.2010.06.004
- Soubrier, Aude (2013). *Description de l'ikposso uwi*. Lyon: Université Lumière Lyon 2 dissertation.

- Spencer, Andrew and Ana R. Luís (2012). *Clitics: An Introduction*. Cambridge: Cambridge University Press.
- Stahlke, Herbert (1970). 'Serial verbs', *Studies in African Linguistics* 1: 60–99.
- Štekauer, Pavol (2015). 'The delimitation of derivation and inflection', in Peter O. Müller, Ingeborg Ohnheiser, Susan Olsen, and Franz Rainer (eds), *Word-Formation: An International Handbook of the Languages of Europe*, vol. 1. Berlin: De Gruyter Mouton, 218–35.
- Stenzel, Kristine (2008). 'Evidentials and clause modality in Wanano', *Studies in Language* 32(2): 405–45. doi:10.1075/sl.32.2.06ste
- Stenzel, Kristine (2013a). *A Reference Grammar of Kotiria (Wanano)*. Lincoln, NE: University of Nebraska Press.
- Stenzel, Kristine (2013b). 'Contact and innovation in Vaupés possession-marking strategies', in Patience Epps and Kristine Stenzel (eds), *Cultural and Linguistic Interaction in the Upper Rio Negro Region*. Rio de Janeiro: Museu do Índio-FUNAI, 353–402.
- Stenzel, Kristine and Elsa Gomez-Imbert (2009). 'Contato linguístico e mudança linguística no noroeste amazônico: O caso do Kotiria (Wanano)', *Revista da ABRALIN* 8: 71–100.
- Stewart, William Alexander and William W. Gage (1970). *Notes on Wolof Grammar by William A. Stewart. Adapted by William W. Gage*, in Dakar Wolof: A Basic Course prepared by Loren V. Nussbaum, William W. Gage, and Daniel Varre. Washington, DC: Center for Applied Linguistics, 355–412.
- Stilo, Donald (2019). 'Loss vs. expansion of gender in Tatic languages: Kafteji (Kabatei) and Kelási', in Alireza Korangy and Behrooz Mahmoodi-Bakhtiari (eds), *Essays on Typology of Iranian Languages*. Berlin: De Gruyter Mouton, 34–78. doi:10.1515/9783110604443-004
- Stoll, Sabine, Balthasar Bickel, and Jekaterina Mažara (2017). 'The acquisition of polysynthetic verb forms in Chintang', in Michael Fortescue, Marianne Mithun, and Nicholas Evans (eds), *The Oxford Handbook of Polysynthesis*. Oxford: Oxford University Press, 495–514.
- Stolz, Thomas (2012). 'Survival in a niche: On gender-copy in Chamorro (and sundry languages)', in Martine Vanhove, Thomas Stolz, Aina Urdze, and Hitomi Otsuka (eds), *Morphologies in Contact*. Berlin: Akademie-Verlag, 93–140.
- Stolz, Thomas (2015). 'Adjective-noun agreement in language contact', in Francesco Gardani, Peter Arkadiev, and Nino Amiridze (eds), *Borrowed Morphology*. Berlin: Mouton de Gruyter, 269–301.
- Street, Chester (1987). *An Introduction to the Language and Culture of the Murrinh-Patha*. Darwin: Summer Institute of Linguistics.
- Stump, Gregory (2001). *Inflectional Morphology: A Theory of Paradigm Structure*. Cambridge: Cambridge University Press.
- Stump, Gregory (2006a). 'Heteroclis and paradigm linkage', *Language* 82(2): 279–322. doi:10.1353/lan.2006.0110
- Stump, Gregory (2006b). 'Template morphology', in Keith Brown (ed.), *Encyclopedia of Language & Linguistics*. 2nd ed. Oxford: Elsevier, 559–63.
- Stump, Gregory (2016). *Inflectional Paradigms: Content and Form at the Syntax-Morphology Interface*. Cambridge: Cambridge University Press.
- Stump, Gregory (2017). 'The nature and dimensions of complexity in morphology'. *Annual Review of Linguistics* 3(1): 65–83. doi:10.1146/annurev-linguistics-011415-040752
- Stump, Gregory and Raphael A. Finkel (2013). *Morphological Typology: From Word to Paradigm*. Cambridge: Cambridge University Press.
- Stump, Gregory and Raphael A. Finkel (2015). 'Contrasting modes of representation for inflectional systems: Some implications for computing morphological complexity', in

- Matthew Baerman, Dunstan Brown, and Greville G. Corbett (eds), *Understanding and Measuring Morphological Complexity*. Oxford: Oxford University Press, 119–40.
- Syea, Anand (1992). 'The short and long forms of verbs in Mauritian Creole: Functionalism versus formalism', *Theoretical Linguistics* 18: 61–97. doi:10.1515/thli.1992.18.1.61
- Sylla, Yero (1982). *Grammaire moderne du Pulaar*. Dakar: Nouvelles éditions africaines.
- Szmrecsanyi, Benedikt and Bernd Kortmann (2009). 'The morphosyntax of varieties of English worldwide: A quantitative perspective', *Lingua* 119(11): 1643–63. doi:10.1016/j.lingua.2007.09.016
- Taft, Marcus (1979). 'Recognition of affixed words and the word frequency effect', *Memory & Cognition* 7(4): 263–72. doi:10.3758/BF03197599
- Taft, Marcus (2004). 'Morphological decomposition and the reverse base frequency effect', *The Quarterly Journal of Experimental Psychology* 57(4): 745–65. doi:10.1080/02724980343000477
- Taft, Marcus and Sam Ardasinski (2006). 'Obligatory decomposition in reading prefixed words', *The Mental Lexicon* 1(2): 183–99. doi:10.1075/ml.1.2.02taf
- Tallman, Adam (2018). *A Grammar of Chácobo, a Southern Pano Language of the Northern Bolivian Amazon*. University of Texas at Austin PhD dissertation.
- Tamba, Khady, Harold Torrence, and Malte Zimmermann (2012). 'Wolof quantifiers', in Edward Keenan and Denis Paperno (eds), *Handbook of Quantification in Natural Language*. New York: Springer, 891–939.
- Thiam, Ndiassé (1987). *Les catégories nominales en wolof. Aspects sémantiques*. Dakar: Centre de linguistique appliquée de Dakar.
- Thomason, Sarah G. (2001). *Language Contact: An Introduction*. Washington, DC: Georgetown University Press.
- Thomason, Sarah G. (2008). 'Pidgins/creoles and historical linguistics', in Silvia Kouwenberg and John Victor Singler (eds), *Handbook of Pidgin and Creole Languages*. Malden, MA: Wiley-Blackwell, 242–62.
- Thomason, Sarah G. (2015). 'When is the diffusion of inflectional morphology not dis-preferred?', in Francesco Gardani, Peter Arkadiev, and Nino Amiridze (eds), *Borrowed Morphology*. Berlin: Mouton de Gruyter, 27–46.
- Thomason, Sarah G. and Terence Kaufman (1988). *Language Contact, Creolization, and Genetic Linguistics*. Berkeley, CA: University of California Press.
- Thomaz, Luis Felipe (2002). *Babel Loro Sa'e: O problema linguístico de Timor-Leste*. Lisboa: Instituto Camões.
- Thornton, Anna M. (2005). *Morfologia*. Roma: Carocci.
- Thornton, Anna M. (2011). 'Overabundance (multiple forms realizing the same cell): A non-canonical phenomenon in Italian verb morphology', in Martin Maiden, John C. Smith, Maria Goldbach, and Marc-Olivier Hinzelin (eds), *Morphological Autonomy: Perspectives from Romance Inflectional Morphology*. Oxford: Oxford University Press, 359–82.
- Thornton, Anna M. (2019). 'Overabundance: A canonical typology', in Franz Rainer, Francesco Gardani, Wolfgang U. Dressler, and Hans Christian Luschützky (eds), *Competition in Inflection and Word-Formation*. Cham: Springer, 223–58. doi:10.1007/978-3-030-02550-2\_9
- Tily, Harry and T. Florian Jaeger (2011). 'Complementing quantitative typology with behavioral approaches: Evidence for typological universals', *Linguistic Typology* 15(2): 497–508. doi:10.1515/LITY.2011.033
- Timberlake, Alan (2004). *A Reference Grammar of Russian*. Cambridge: Cambridge University Press.

- Tinitis, Peeter (2014). 'Language stability and morphological complexity in situations of language contact: An experimental paradigm', in *19th International Congress of Linguists Papers*. Geneva: Département de Linguistique de l'Université de Genève.
- Tomasello, Michael (2000). 'First steps in a usage-based theory of language acquisition', *Cognitive Linguistics* 11: 61–82. doi:10.1515/cogl.2001.012
- Tomasello, Michael (2006). 'Acquiring linguistic constructions', in Robert Siegler and Deanna Kuhn (eds), *Handbook of Child Psychology*. New York: Wiley, 1860–2010.
- Torrence, Harold (2013). *The Clause Structure of Wolof: Insights into the Left Periphery*. Amsterdam: John Benjamins.
- Tourneux, Henry and Maurice Barbotin (2009). *Dictionnaire pratique du créole de Guadeloupe*. Paris: Karthala.
- Tribout, Delphine (2012). 'Verbal stem space and verb to noun conversion in French', *Word Structure* 5: 109–28. doi:10.3366/word.2012.0022
- Trudgill, Peter (1983). 'Language contact and language change: On the rise of the creoloid', in Peter Trudgill (ed.), *On Dialect: Social and Geographical Perspectives*. Oxford: Blackwell, 102–7.
- Trudgill, Peter (1997). 'Typology and sociolinguistics: Linguistic structure, social structure and explanatory comparative dialectology'. *Folia Linguistica* 31(3–4): 349–60. doi:10.1515/flin.1997.31.3-4.349
- Trudgill, Peter (1999). 'Language contact and the function of linguistic gender', *Poznań Studies in Contemporary Linguistics* 35: 133–52.
- Trudgill, Peter (2004a). 'Linguistic and social typology: The Austronesian migrations and phoneme inventories', *Linguistic Typology* 8(3): 305–20. doi:10.1515/lity.2004.8.3.305
- Trudgill, Peter (2004b). 'The impact of language contact and social structure on linguistic structure', in Bernd Kortmann (ed.), *Dialectology Meets Typology: Dialect Grammar from a Cross-Linguistic Perspective*. Berlin: Mouton de Gruyter, 435–51.
- Trudgill, Peter (2009). 'Sociolinguistic typology and complexification', in Geoffrey Sampson, David Gil, and Peter Trudgill (eds), *Language Complexity as an Evolving Variable*. Oxford: Oxford University Press, 98–109.
- Trudgill, Peter (2011). *Sociolinguistic Typology: Social Determinants of Linguistic Complexity*. Oxford: Oxford University Press.
- Trudgill, Peter (2017). 'The anthropological setting of polysynthesis', in Michael Fortescue, Marianne Mithun, and Nicholas Evans (eds), *The Oxford Handbook of Polysynthesis*. Oxford: Oxford University Press, 186–202.
- Tuite, Kevin (1999). 'The myth of the Caucasian Sprachbund: The case of ergativity', *Lingua* 108(1): 1–29. doi:10.1016/S0024-3841(98)00037-0
- Ullman, Michael T. (2001). 'The declarative/procedural model of lexicon and grammar', *Journal of Psycholinguistic Research* 30(1): 37–69. doi:10.1023/A:1005204207369
- Ullman, Michael T. (2004). 'Contributions of memory circuits to language: The declarative/procedural model', *Cognition* 92(1–2): 231–70. doi:10.1016/j.cognition.2003.10.008
- Valdman, Albert, Iskra Iskrova, and Benjamin Hebblethwaite (2007). *Haitian Creole-English Bilingual Dictionary*. Bloomington, IN: Indiana University Creole Institute.
- Valenzuela, Pilar (2003). *Transitivity in Shipibo-Konibo Grammar: A Typologically Oriented Study*. University of Oregon PhD dissertation.
- Valenzuela, Pilar (2010). 'Applicative constructions in Shipibo-Konibo (Panoan)', *International Journal of American Linguistics* 76: 101–44. doi:10.1086/652756
- Vallejos Yopán, Rosa (2010). *A Grammar of Kokama-Kokamilla*. University of Oregon PhD dissertation.

- van der Voort, Hein (2005). 'Kwaza in comparative perspective', *International Journal of American Linguistics* 71: 365–412. doi:10.1086/501245
- van der Voort, Hein (2016). 'Recursive inflection and grammaticalized fictive interaction in the Southwestern Amazon', in Esther Pascual and Sergei Sandler (eds), *The Conversation Frame: Forms and Functions of Fictive Interaction*. Amsterdam: John Benjamins, 277–302.
- Van Engelenhoven, Aone (2004). *Leti, a Language of Southwest Maluku*. Leiden: KITLV Press.
- van Gijn, Rik and Fernando Zúñiga (2014). 'Word and the Americanist perspective', *Morphology* 24: 135–60. doi:10.5167/uzh-99717
- Vanhove, Martine (2001). 'Contacts de langues et complexification des systèmes: Le cas du maltais', *Faits de Langues* 18: 65–74.
- Veenstra, Tonjes (2009). 'Verb allomorphy and the syntax of phases', in Enoch Aboh and Norval Smith (eds), *Complex Processes in New Languages*. Amsterdam: John Benjamins, 99–114.
- Veenstra, Tonjes and Angelika Becker (2003). 'The survival of inflectional morphology in French-related creoles', *Studies in Second Language Acquisition* 25: 285–306. doi:10.1017/S0272263103000123
- Villoing, Florence and Maxime Deglas (2016). 'La formation de verbes dénominaux en guadeloupéen. La part de l'héritage et de l'innovation', *5ème Congrès Mondial de Linguistique Française 2016*, Tours, France. doi:10.1051/shsconf/20162708004
- Wälchli, Bernhard (2017). 'The incomplete story of feminine gender loss in Northwestern Latvian dialects', *Baltic Linguistics* 8: 143–214.
- Wälchli, Bernhard (2018). 'The rise of gender in Nalca (Mek, Tanah Papua): The drift towards the canonical gender attractor', in Sebastian Fedden, Jenny Audring, and Greville Corbett (eds), *Non-Canonical Gender Systems*. Oxford: Oxford University Press, 68–99.
- Walsh, Michael (1976). *The Murinypata Language of North-West Australia*. Australian National University PhD dissertation.
- Walther, Géraldine (2017). 'Paradigm realisation and the lexicon', in Ferenc Kiefer, James P. Blevins, and Huba Bartos (eds), *Perspectives on Morphological Organization: Data and Analyses*. Leiden: Brill, 159–99.
- Weinreich, Uriel, William Labov, and Marvin Herzog (1968). 'Empirical foundations for a theory of language change', in Winfred Philip Lehmann and Yakov Malkiel (eds), *Directions for Historical Linguistics*. Austin, TX: University of Texas Press, 95–198.
- Wells, Rulon (1954). 'Archiving and language typology', *International Journal of American Linguistics* 20(2): 101–7.
- Wichmann, Søren and Eric W. Holman (2009). *Temporal Stability of Linguistic Typological Features*. München: LINCOM Europa.
- Wilson, William André Auquier (1989). 'Atlantic', in John Theodore Bendor-Samuel (ed.), *The Niger-Congo Languages: A Classification and Description of Africa's Largest Language Family*. Lanham, MD: University Press of America, by arrangement with the Summer Institute of Linguistics (SIL), 81–104.
- Wilson, William André Auquier (2007). *Guinea Languages of the Atlantic Group*. Frankfurt am Main: Peter Lang.
- Wise, Mary Ruth (1971). *Identification of Participants in Discourse: A Study of Aspects of Form and Meaning in Nomatsiguenga*. Norman, OK: Summer Institute of Linguistics of the University of Oklahoma.



- Wise, Mary Ruth (1990). 'Valence-changing affixes in Maipuran Arawakan languages', in Doris Payne (ed.), *Amazonian Linguistics: Studies in Lowland South American Languages*. Austin, TX: University of Texas Press, 89–116.
- Wise, Mary Ruth (2002). 'Applicative affixes in Peruvian Amazonian languages', in Mily Crevels, Simon van de Kerke, Sérgio Meira, and Hein van der Voort (eds), *Current Studies on South American Languages: Selected Papers from the 50th International Congress of Americanists in Warsaw and the Spinoza Workshop on Amerindian Languages in Leiden, 2000*. Leiden: Research School of Asian, African, and Amerindian Studies (CNWS), 329–44.
- Wittmann, Henri and Robert Fournier (1987). 'Interpretation diachronique de la morphologie verbale du créole réunionnais.' *Revue québécoise de linguistique* 6(2): 137–50.
- Woodbury, Anthony (2017). 'Central Alaskan Yupik (Eskimo-Aleut): A sketch of morphologically orthodox polysynthesis', in Michael Fortescue, Marianne Mithun, and Nicholas Evans (eds), *The Oxford Handbook of Polysynthesis*. Oxford: Oxford University Press, 536–60.
- Wray, Alison and George W. Grace (2007). 'The consequences of talking to strangers: Evolutionary corollaries of socio-cultural influences on linguistic form', *Lingua* 117(3): 543–78. doi:10.1016/j.lingua.2005.05.005
- Wurzel, Wolfgang U. (1989). *Inflectional Morphology and Naturalness*. Dordrecht: Kluwer.
- Xanthos, Aris, Sabine Laaha, Steven Gillis, Ursula Stephany, Ayhan Aksu-Koç, Anastasia Christofidou, Natalia Gagarina, Gordana Hrzica, F. N. Ketrez, Marianne Kilani-Schoch, Katharina Korecky-Kröll, Melita Kovačević, Klaus Laalo, Marijan Palmović, Barbara Pfeiler, Maria D. Voeikova, and Wolfgang U. Dressler (2011). 'On the role of morphological richness in the early development of noun and verb inflection', *First Language* 31 (4): 461–79. doi:10.1177%2F0142723711409976
- Yarshater, Ehsan (1969). *A Grammar of Southern Tati Dialects*. The Hague: Mouton.
- Zaliznjak, Andrei A. (1967). *Russkoe imennoe slovoizmenenie*. Moscow: Nauka.
- Zaliznjak, Andrei A. (1977). *Grammatičeskij slovar' russkogo jazyka*. Moscow: Russkij jazyk.
- Zúñiga, Fernando (2017). 'On the morphosyntax of indigenous languages of the Americas', *International Journal of American Linguistics* 83(1): 111–39. doi:10.1086/689548
- Zwitsersloot, Inge (2003). 'Word formation below and above little x: Evidence from sign language of the Netherlands', *Nordlyd* 31(2): 488–502.